Manitoba

Fire Loss Report 1986

Labour

Office of the
Fire Commissioner

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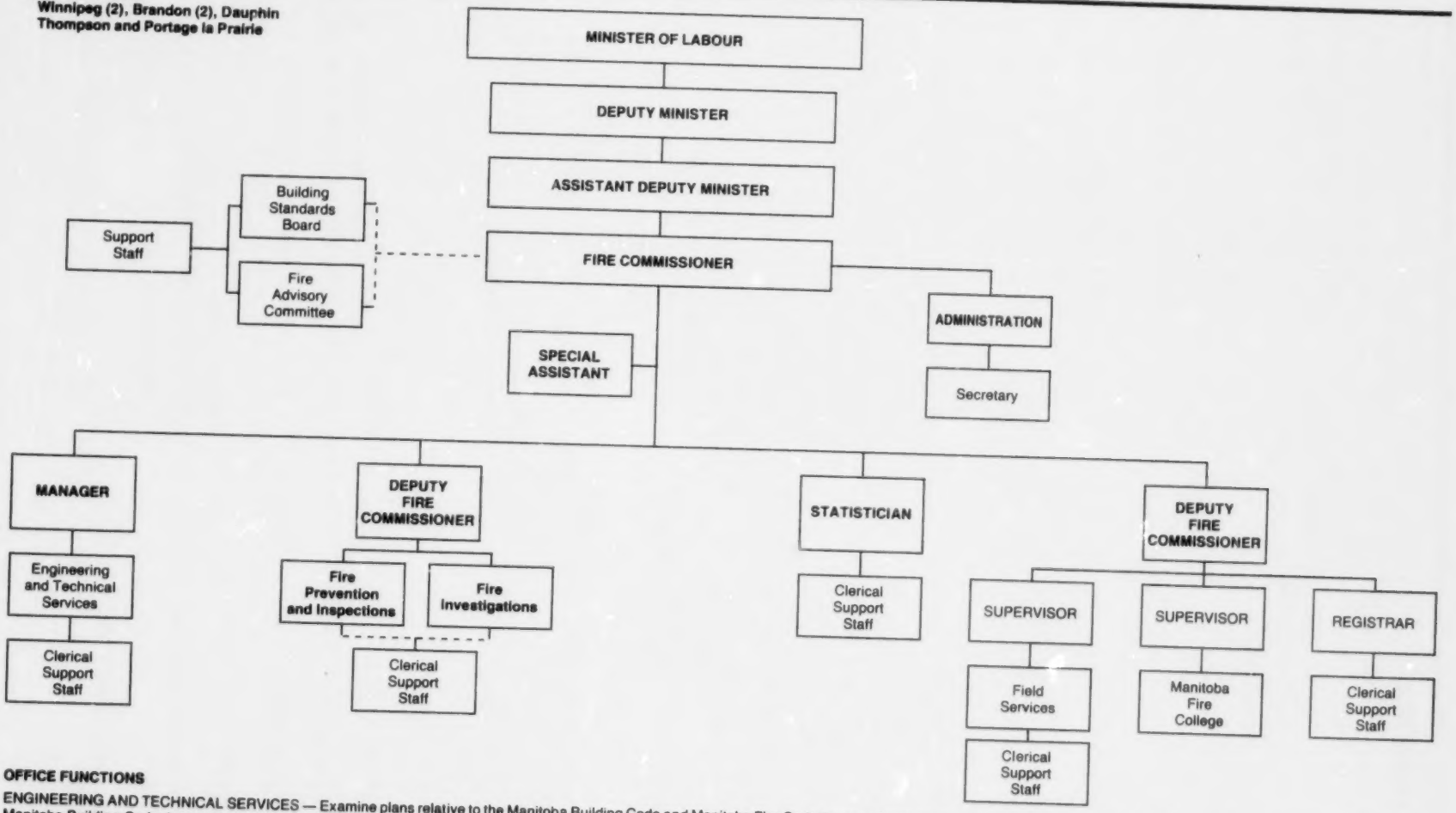
Functions of the Office of the Fire Commissioner
Province of Manitoba

Regional Offices:
Winnipeg (2), Brandon (2), Dauphin
Thompson and Portage la Prairie



OFFICE FUNCTIONS

ENGINEERING AND TECHNICAL SERVICES — Examine plans relative to the Manitoba Building Code and Manitoba Fire Code for compliance to: New construction, Existing Buildings, Inspects buildings for compliance to the Manitoba Building Code; Inspects and issues permits to sell for: Mobile Homes, Recreational Vehicles.

FIRE PREVENTION AND INSPECTIONS — Inspection of: Public Buildings, Schools, Hotels and Motels, Institutions, Industrial Establishments; Instruct and lecture to: staff of hospitals, schools, fire departments, and industrial establishments.

INVESTIGATIONS — Detection of arson; Determination of cause and origin; Investigation of fires resulting in injuries or fatalities.

STATISTICS — Compile and disseminate uniform fire loss statistics: Prepare Annual Report; Instruct on the Fire Loss Reporting System to: Fire Departments, Insurance Adjusters.

FIELD SERVICES — Assist Fire Departments in: Organization Requirements, Equipment Requirements, Apparatus Requirements, Mutual Aid; Conduct: Fire Protection Surveys, Fire Pumper Specifications, Fire Pumper Tender Perusal and Assessments, Fire Pumper Performance and Acceptance Field Test; Instruct: On the Control of Dangerous Goods Incidents; Administer the Municipal Fire Prevention Program.

MANITOBA FIRE COLLEGE — Certification Program; Certify: Paid and Volunteer Fire Fighters, Fire Service Instructors, Fire Prevention Officers, Institutional Fire Marshals, Institutional Staff; Train: Dangerous Goods, Fire Cause Determination, Search and Rescue, Vehicle Extrication.

Office of the Fire Commissioner

The role and mission of the Office of the Fire Commissioner is to promote and encourage the safety of persons, to reduce life and property loss in respect to fires, dangerous goods, structural and mechanical matters and other related hazards through the administration of The Manitoba Fires Prevention Act and The Buildings and Mobile Homes Act.

Functions

In administering the Acts, the functions of the Office of the Fire Commissioner are to:

— conduct investigations to determine the cause, origin and circumstances of fires.

— advise and train the fire service, building officials, and other interested groups in fire prevention and protection practices, building inspections, dangerous goods, emergency services management and rescue.

— advise building officials and other interested persons in the application of the Manitoba Building Code.

— promote public education in fire prevention practices and life safety measures.

— collect and analyze fire cause related information to address fires and other life safety hazards.

— conduct fire prevention inspections of public occupied buildings and places of assembly to ensure compliance with fire regulations.

— provide consulting services to fire departments and other agencies to evaluate and recommend fire protection equipment.

Under the direction of the Fire Commissioner, the branch has seven sections to carry out its specific functions. These include Administration, Statistical Services, Investigation, Prevention, the Manitoba Fire College, Field Services, and Engineering and Technical Services.

This report is a statistical report on fire losses throughout the province. For more in depth statistics on the operations of the Office of the Fire Commissioner please refer to the Department of Labour Annual Report.

Review of 1986

In 1986 the Province of Manitoba recorded 5,840 fire incidents, a reduction of 698 or 11% over the previous year. Unfortunately, the monitary loss rose drastically to $53,972,761 or by 41% over 1985.

The main reason for the increase in property damage can be attributed to the 25 major loss fires (greater than $250,000) which incurred a $23,699,960 loss, more than doubling last years monitary loss. These figures represent less than one half of the one percent of the total fires and 44% of the total financial loss throughout the province.

The number of lives lost due to fires decreased by five or 13%. There were 33 fatalities, 13 men, 13 women and 7 children who perished in 25 fires. The presence of alcohol contributed directly or indirectly to 12 or 36% of all 1986 deaths.

The 268 fire injuries reported this past year represents a 16% increase in comparison to the 232 reported in 1985. The number of male adults rose by 47 while women and children decreased by eight and three respectively.

Of greatest concern is the number of fires reported in residential occupancies in 1986. These account for 26 or 79% of all fire fatalities, 37% of all reported fires and 34% of the total dollar loss.

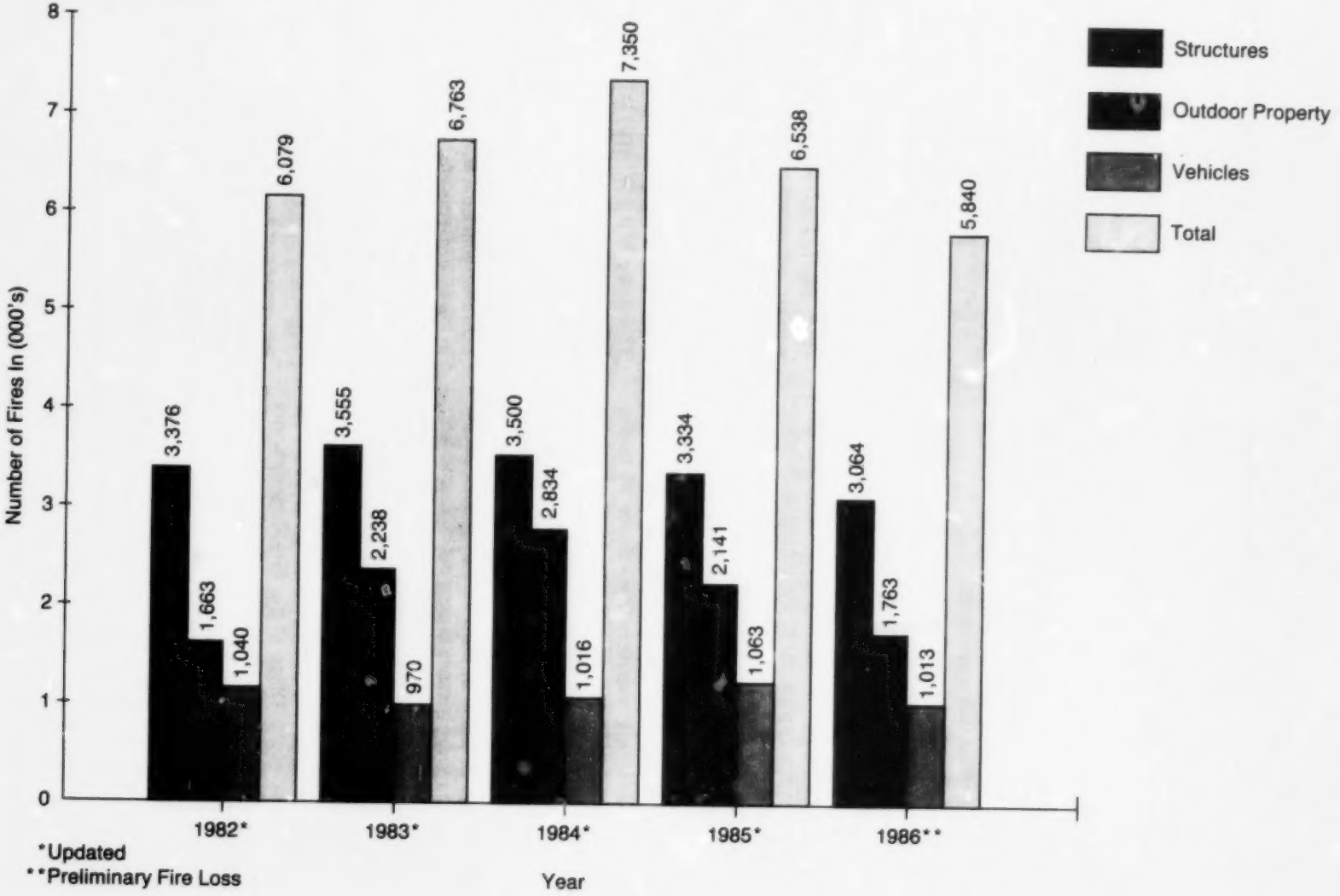
This past year police forces in the province conducted 363 investigations. Of these 202 or 56% were found to be accidental; followed by 91 or 25% being undetermined; 69 or 19% were incendiary, vandalism or undetermined suspicious; and one is still under investigation. Further information on investigations conducted by staff of the Fire Commissioner's Office in cooperation with local authorities will now be published in the 86/87 Department of Labour Annual Report.

The number of persons charged this year remained constant. Persons convicted of fire related offences are down to 38 from the previous years 44. This figure could further increase once the 23 court cases pending are disposed.

The Office of the Fire Commissioner recognizes the assistance of the members of the fire service, police, insurance industry and other agencies in meeting our responsibilities in the administration of The Fires Prevention Act, The Building and Mobile Homes Act, training and fires investigations throughout the Province of Manitoba.

Chart No. 1

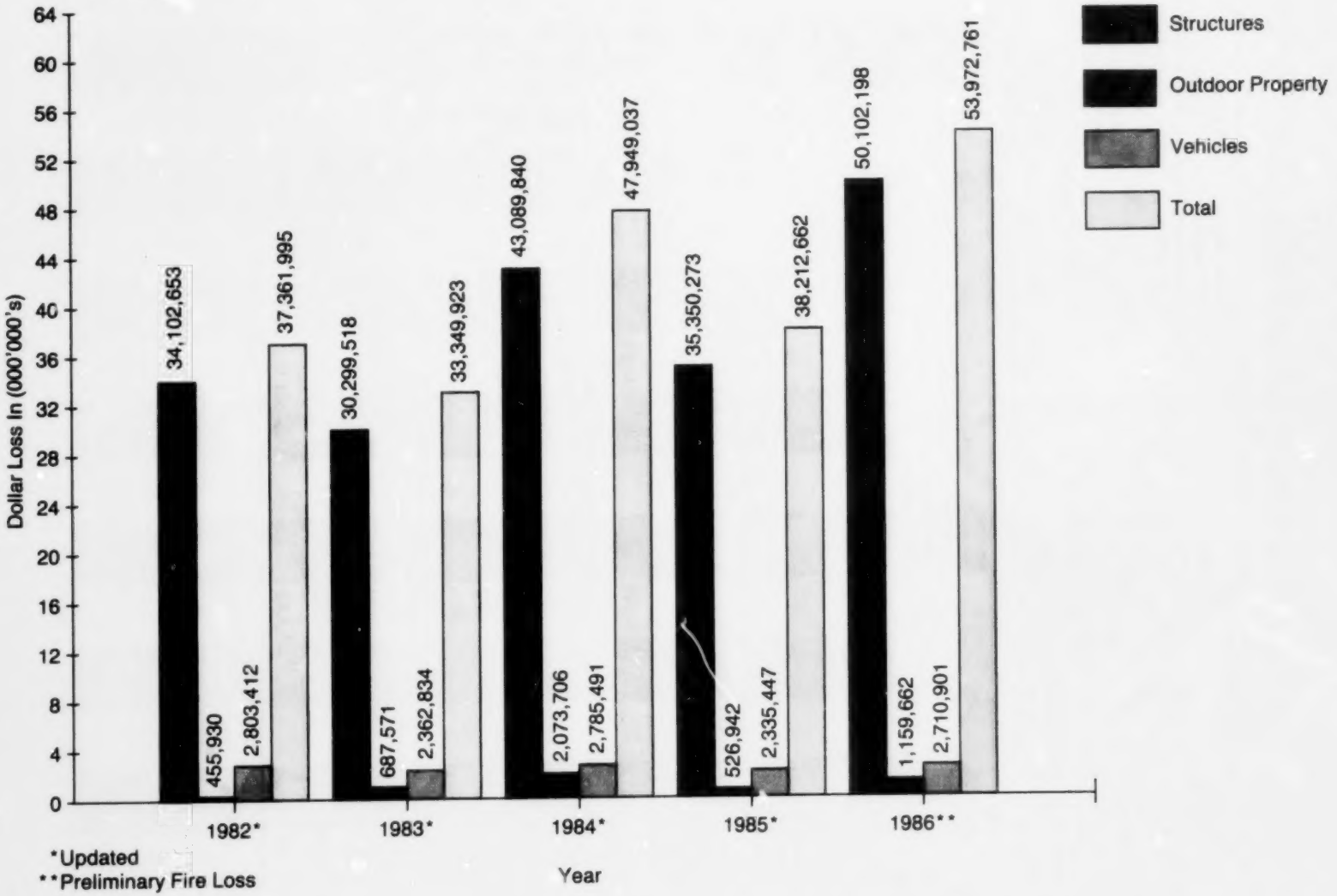
Comparative Chart of the Total Number of Fires in Manitoba, 1982 - 1986



*Updated
**Preliminary Fire Loss

Chart No. 2

Comparative Chart of the Total Dollar Loss in Manitoba. 1982 - 1986



*Updated

**Preliminary Fire Loss

Table No. 1

Distribution of Fires by Amount of Dollar Loss, 1986

Amount of Dollar Loss Minimum	Maximum	Number of Fires	Percentage of Total	Dollar Loss	Percentage of Total
Less than	$ 100.00	2,653	45.42%	$ 7,854	.01%
100.00 to	999.99	1,169	20.02	490,793	.91
1,000.00 to	9,999.99	1,366	23.39	4,129,167	7.65
10,000.00 to	49,999.99	445	7.62	10,042,520	18.61
50,000.00 to	249,999.99	182	3.12	15,602,467	28.91
250,000.00 and greater		25	.43	23,699,960	43.91
Total		**5,840**	**100.00%**	**$53,972,761**	**100.00%**

Table No. 2

Fires and Fire Losses by Month, 1986

Month	Number of Fires	Percentage of Total	Dollar Loss	Percentage of Total
January	413	7.07%	$ 5,662,701	10.49%
February	375	6.42	9,448,689	17.50
March	448	7.67	3,261,170	6.04
April	528	9.04	2,770,650	5.13
May	766	13.12	5,039,644	9.34
June	568	9.73	5,289,339	9.80
July	418	7.16	5,767,389	10.69
August	499	8.54	2,903,996	5.38
September	476	8.15	2,113,706	3.92
October	579	9.91	6,492,533	12.03
November	398	6.82	2,486,637	4.61
December	372	6.37	2,736,307	5.07
Total	**5,840**	**100.00%**	**$53,972,761**	**100.00%**

Chart No. 3

Number of Fires by Day of Week, 1986

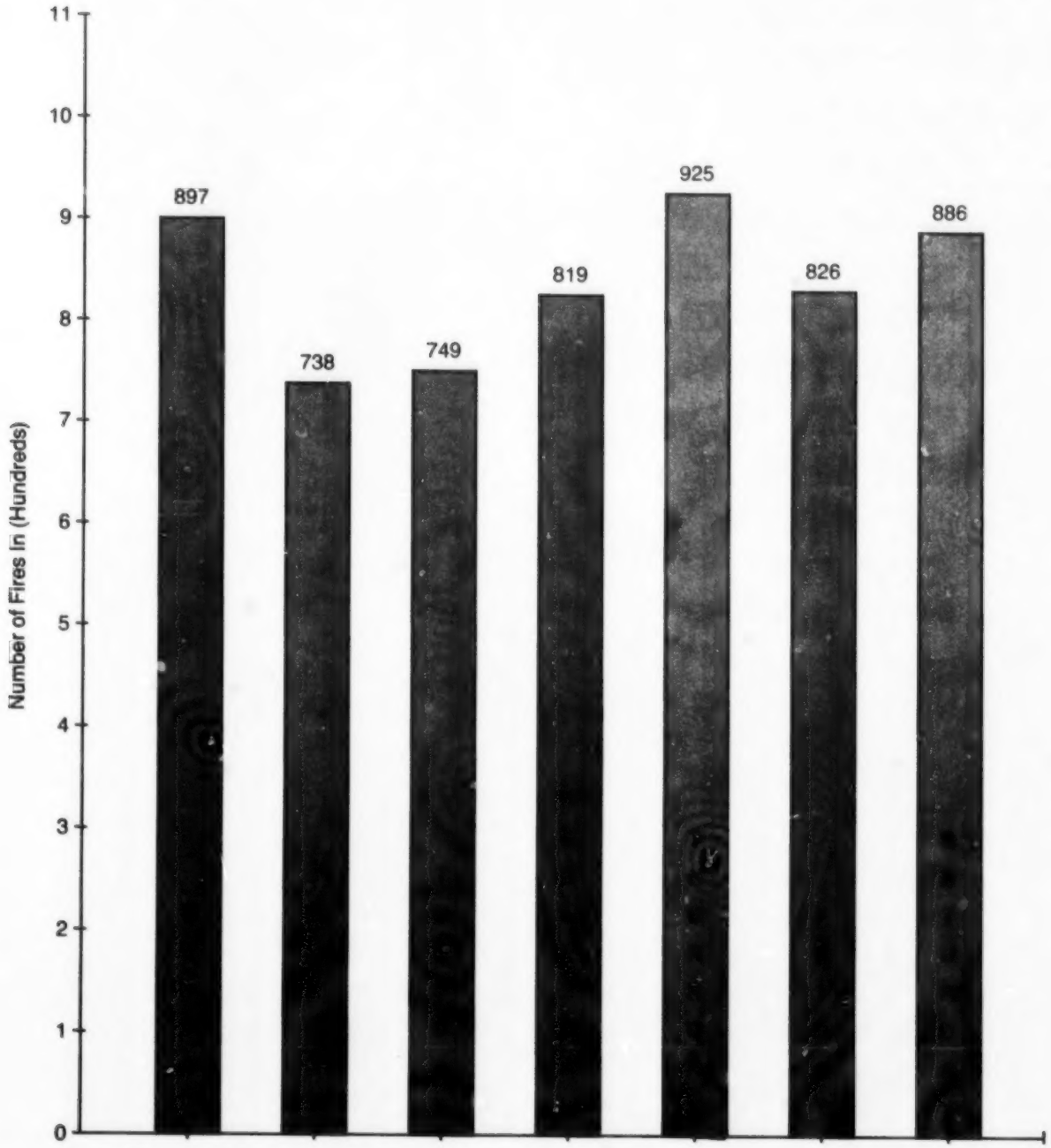


Chart No. 4

Dollar Loss by Day of Week, 1986

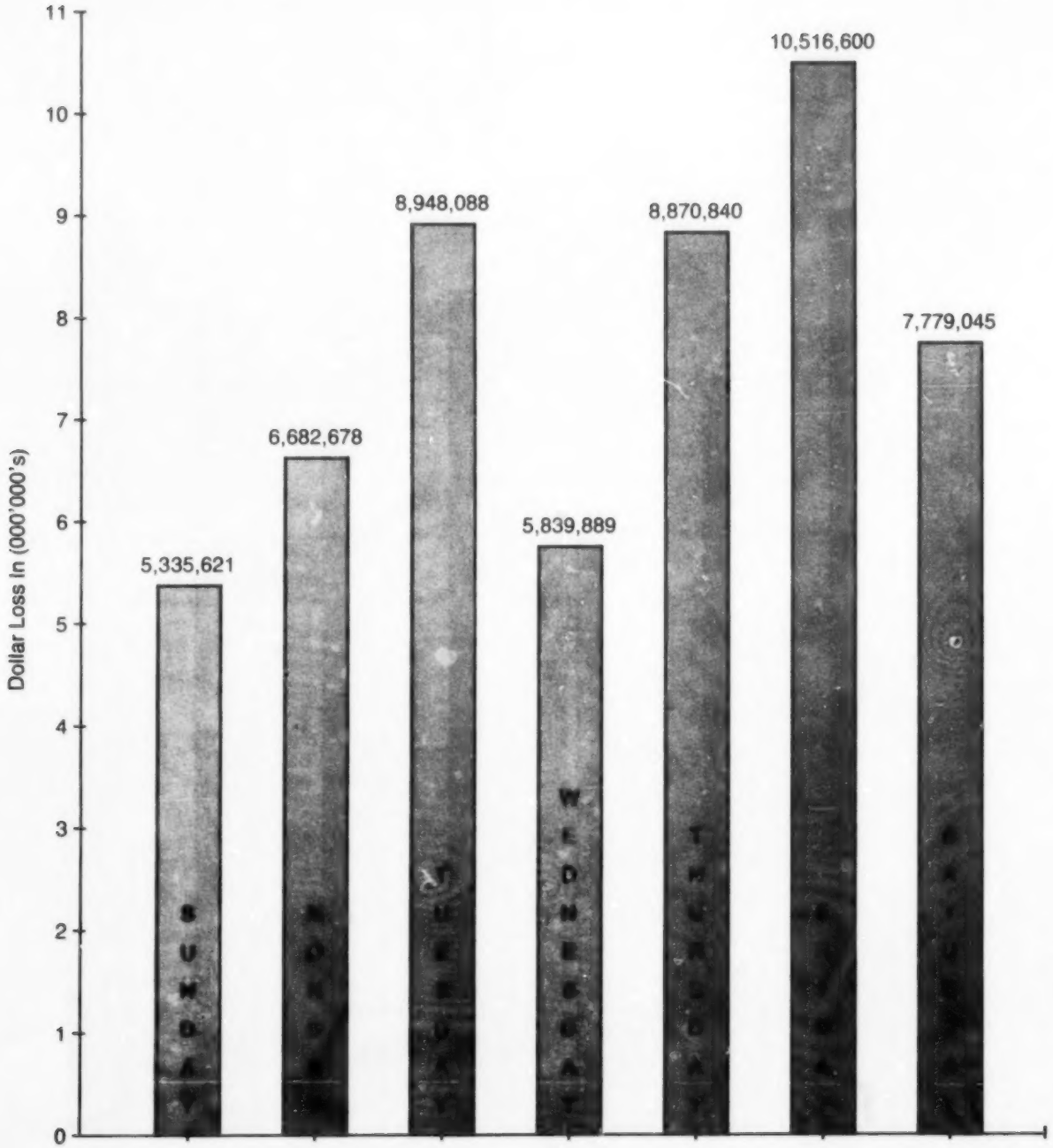


Chart No. 5

Number of Fires by Hour of Day, 1986

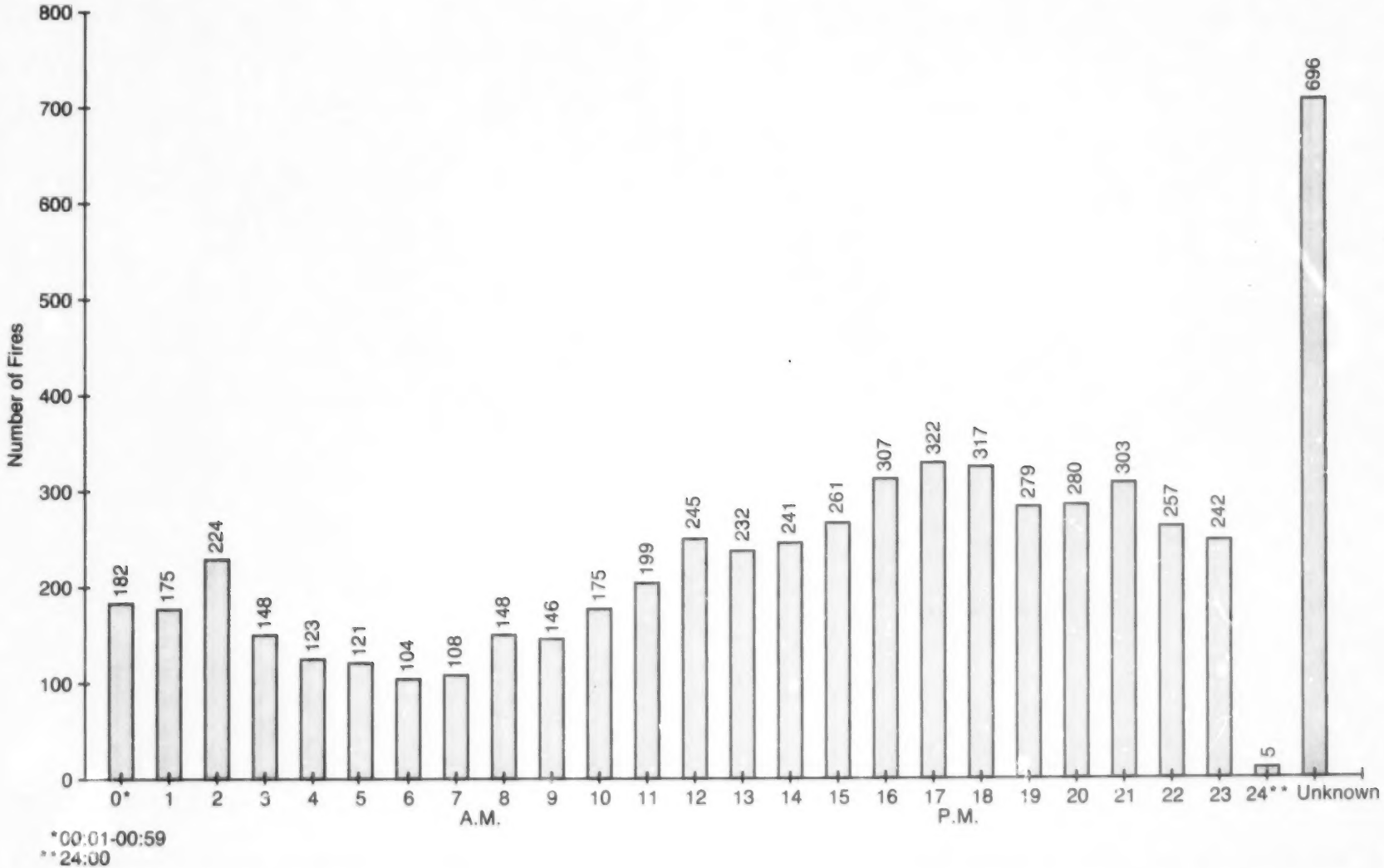


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Chart No. 6

Dollar Loss by Hour of Day, 1986

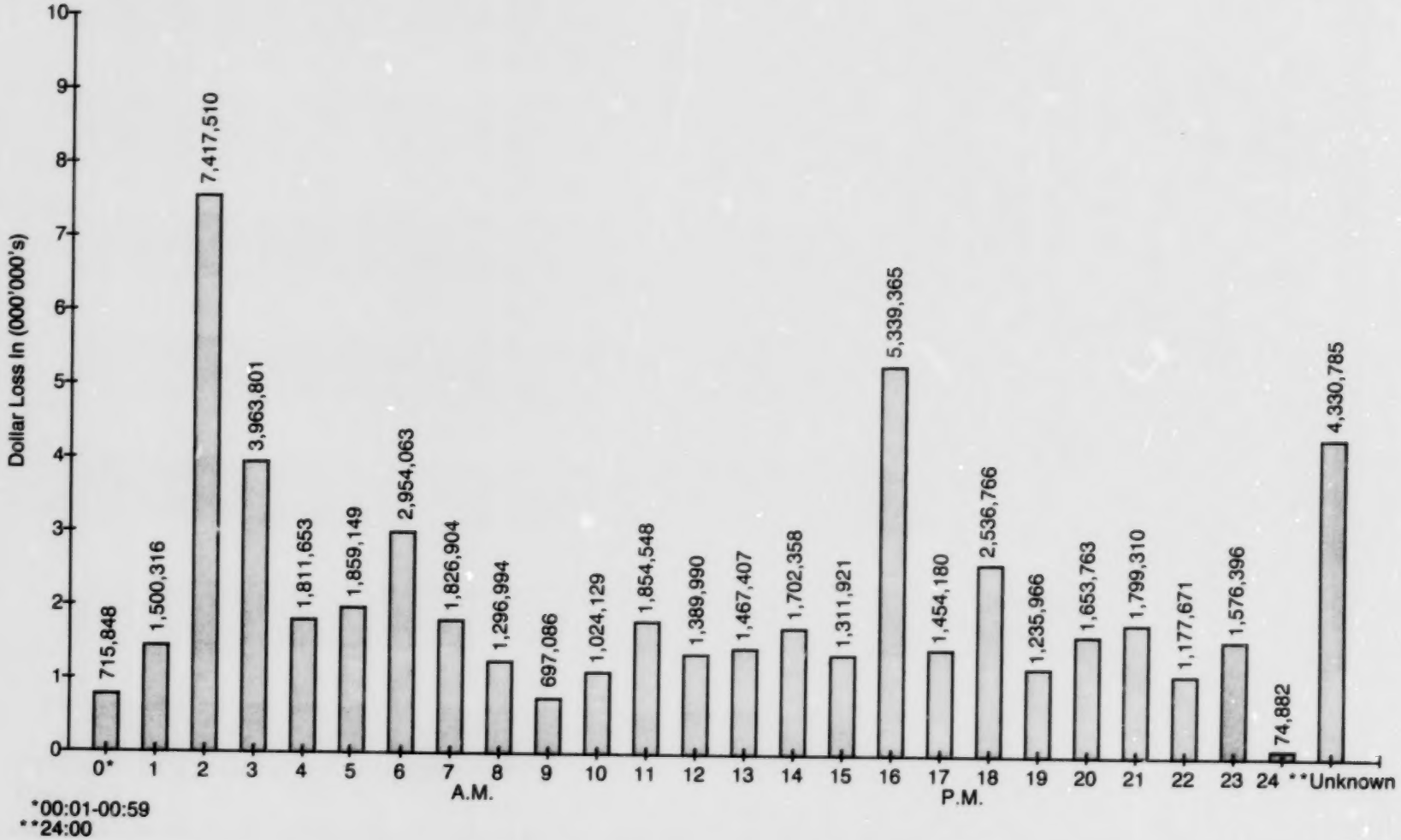

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Table No. 3

Number of Fires Resulting in Death and Details of Fatalities, 1977-1986

Year	Number of Fatal Fires	Men	Women	Children[1]	Total Fatalities
1977	43	46	15	14	75
1978	39	31	8	13	52
1979	32	24	6	14	44
1980	27	13	11	12	36
1981	36	25	15	12	52
1982	30	15	13	11	39
1983	36	26	9	15	50
1984	22	13	9	11	33
1985	26	22	8	8	38
1986	25	13	13	7	33

[1]*Fifteen years of age and under*

Table No. 4

Breakdown of Fire Fatalities by Property Classification, 1986

Property Classification	Men	Women	Children	Total	Percent
Residential:					
One and Two Family Residences, Duplex	5	10	—	15	45.46%
Apartment, Condominium	—	2	7	9	27.27
Rooming House	1	1	—	2	6.06
Building Under Construction	1	—	—	1	3.03
Motor Vehicle	2	—	—	2	6.06
Aircraft	3	—	—	3	9.09
Tractor	1	—	—	1	3.03
Total	**13**	**13**	**7**	**33**	**100.00%**

Table No. 5

Fire Fatalities by Age and Sex, 1986

	Five Years and Under	6-15	16-25	26-35	36-45	46-55	56-65	Over 65	Unknown	Total
Male	1	—	3	5	2	2	—	1	—	14
Female	2	4	—	4	2	1	4	2	—	19
Total	3	4	3	9	4	3	4	3	—	33

Table No. 6

Number of Fire Injuries, 1986

	Men	Women	Children	Total
Injuries	207	40	21	268

Table No. 7

Fire Injuries by Age and Sex, 1986

	Five Years and Under	6-15	16-25	26-35	36-45	46-55	56-65	Over 65	Unknown	Total
Male	4	9	25	71	33	31	12	3	32	220
Female	2	6	13	3	4	3	3	3	11	48
Total	**6**	**15**	**38**	**74**	**37**	**34**	**15**	**6**	**43**	**268**

Chart No. 7

Fire Fatalities by Hour of Day, 1986

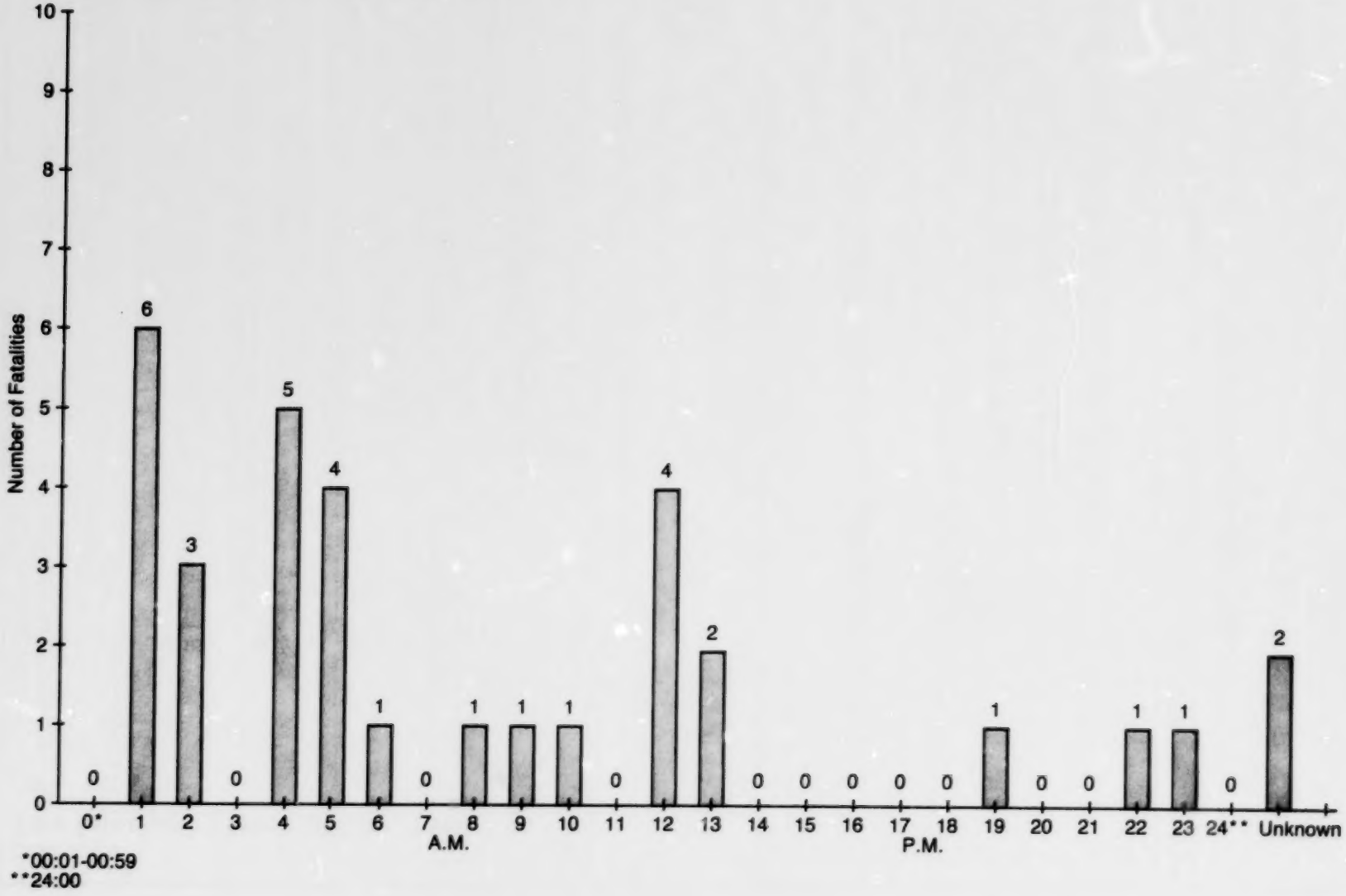

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Chart No. 8

Fire Injuries by Hour of Day, 1986

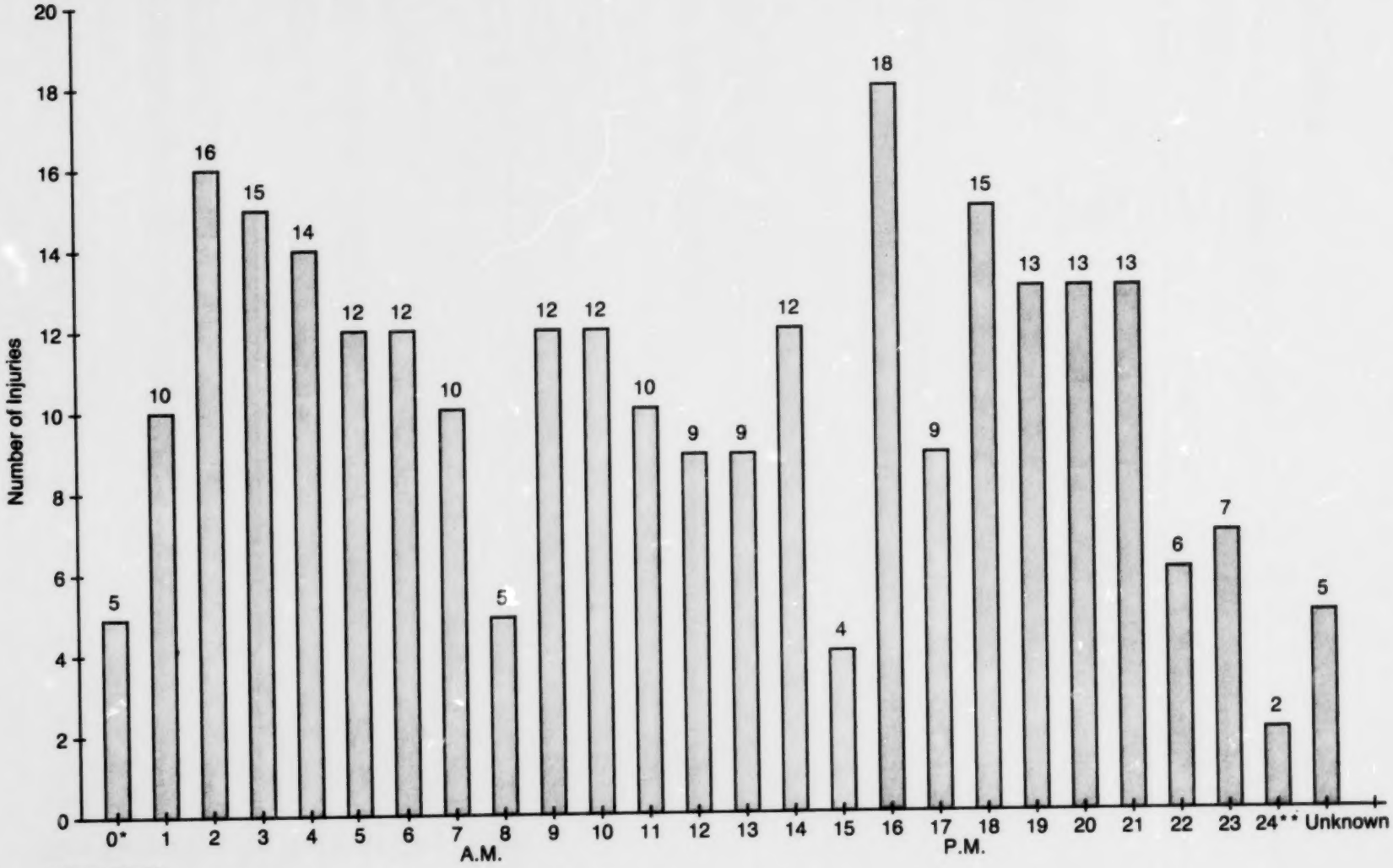

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Table No. 8

Breakdown of Fire Fatalities by Act or Omission, 1986

Act or Omission	Men	Women	Children	Total	Percent
Incendiary or Set Fire	1	1	—	2	6.06%
Misuse of Source of Ignition	1	3	5	9	27.27
Misuse of Material Ignited	—	—	—	—	—
Mechanical, Electrical Failure Malfunction	1	—	—	1	3.03
Construction, Design or Installation Deficiency	—	—	—	—	—
Misuse of Equipment	—	1	—	1	3.03
Human Failing	4	6	—	10	30.31
Vehicle Accident	3	—	—	3	9.09
Undetermined	3	2	2	7	21.21
Total	**13**	**13**	**7**	**33**	**100.00%**

Table No. 9

Circumstances Contributing to Fire Casualties, 1986

Condition of Casualty at Time of Fire	Fatalities	Injuries
Not applicable	3	191
Asleep at time of fire	8	34
Bedridden or other physical or mental handicap	1	1
Impairment by Alcohol	10	2
Impairment by Drugs	2	—
Under restraint or detention	—	—
Too young to act	3	2
Senile	—	—
Left unattended (children)	—	3
Unclassified or unknown	6	35
	33	**268**

Action of Casualty at Time of Fire	Fatalities	Injuries
Not applicable	6	148
Injured while attempting to escape	—	20
Over-exertion, heart attack, etc.	—	1
Voluntarily entered or remained for rescue purposes	1	4
Voluntarily entered or remained for fire fighting	2	50
Voluntarily entered or remained to save personal property	—	1
Loss of judgement; panic	2	3
Received delayed warning	3	1
Parents or guardian injured	—	—
Unclassified or unknown	19	40
	33	**268**

Table No. 9 (continued)

Circumstances Contributing to Fire Casualties, 1986

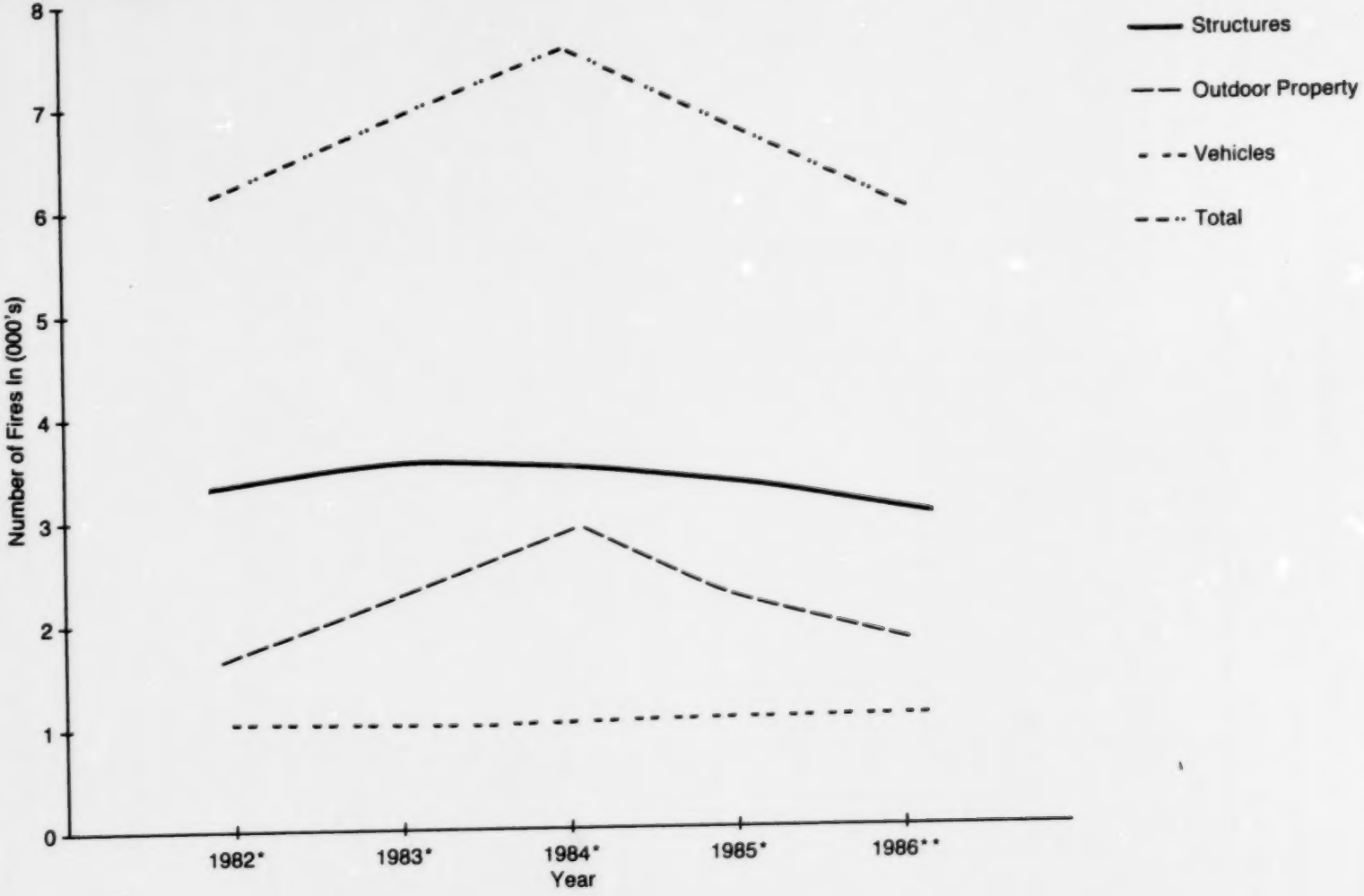
Ignition of Clothing at Time of Fire	Fatalities	Injuries
Not applicable	7	211
Outer clothing	4	12
Sleepwear	1	—
Underclothing	—	—
Costume	—	—
Bedding or bed linen; mattress or pillow	2	2
Upholstered furniture	1	8
Unclassified or unknown	18	35
	33	**268**

Type of Fabric or Material Ignited	Fatalities	Injuries
Not applicable	5	208
Cotton	—	6
Wool	—	—
Other natural fibre	—	—
Rayon (viscose)	—	—
Other synthetic fibre	2	7
Mixture fibres	5	3
Rubber	—	—
Plastic foam	—	—
Unclassified or unknown	21	44
	33	**268**

Cause of Failure to Escape	Fatalities	Injuries
Not applicable	3	214
Trapped by: rapid spread of fire/smoke through vertical openings; stairways, elevators	5	1
Trapped by: rapid spread of fire/smoke through horizontal openings	2	4
High flame spread of combustible interior finish of walls, ceilings, or floors	7	2
Building collapse	—	—
Falling debris	—	—
Explosion	3	10
Exit blocked or obstructed by fire	—	1
Outdoor fires, includes forest and bush	1	1
Unclassified or unknown	12	35
	33	**268**

Chart No. 9

Comparative Chart of the Total Number of Fires in Manitoba, 1982 - 1986



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**Preliminary Fire Loss

Table No. 10

Losses by Major Property Classifications, 1986

Property Classification	Number of Fires	Percent	Amount	Percent
ASSEMBLY				
Theatre, Studio, Auditorium	1	.02%	$ 500	—%
Amusement and Recreation Place	15	.25	339,125	.63
School, College, University	32	.55	7,499,150	13.90
Church, Court Room, Funeral Parlour	5	.09	2,003,880	3.71
Social, Sport Club	7	.12	130,000	.24
Library, Museum	2	.03	35,000	.06
Eating Establishment	36	.62	635,474	1.18
Passenger Terminal, Station	2	.03	1,100,200	2.04
Miscellaneous	—	—	—	—
Sub-total	**100**	**1.71**	**11,743,329**	**21.76**
INSTITUTIONAL				
Prison, Jail, Reformatory	7	.12	31,200	.06
Home for the Aged	19	.33	85,840	.16
Children's Hospital	1	.02	3,398	.01
Hospital, Sanitorium, Clinic	25	.42	301,800	.55
Miscellaneous	3	.05	180	—
Sub-total	**55**	**.94**	**422,418**	**.78**
RESIDENTIAL				
Residential	1,596	27.33	13,639,527	25.27
Apartment	409	7.00	2,750,507	5.10
Rooming, Boarding House	29	.50	285,713	.53
Hotel	42	.71	345,892	.64
Motor Hotel	5	.09	157,221	.29
Dormitory	7	.12	8,200	.02
Mobile Home	63	1.08	890,078	1.65
Miscellaneous	7	.12	91,892	.17
Sub-total	**2,158**	**36.95**	**18,169,030**	**33.67**
BUSINESS AND PERSONAL SERVICES				
Office	22	.38	165,962	.30
Personal Service	1	.02	14,554	.03
Electronic Equipment	—	—	—	—
Miscellaneous	2	.03	3,985	.01
Sub-total	**25**	**.43**	**184,501**	**.34**

Table No. 10 (continued)

Losses by Major Property Classifications, 1986

Property Classification	Number of Fires	Percent	Amount	Percent
MERCANTILE				
Food, Beverage Sale	9	.15%	$ 849,500	1.58%
Textile, Wearing Apparel Sale	5	.09	260,708	.48
Furniture, Appliance, Hardware Sale	4	.07	6,625	.01
Books, Newspapers, Drugs, Specialties	3	.05	29,075	.05
Recreation, Hobby Supplies	3	.05	50,170	.09
Repair Shop, Laundry, Dry Cleaner	7	.12	37,583	.07
Motor Vehicle, Boat, Sales and Service	34	.59	560,879	1.05
Department, Variety Store	3	.05	5,000	.01
Miscellaneous	6	.10	12,000	.02
Sub-total	**74**	**1.27**	**1,811,540**	**3.36**
INDUSTRIAL MANUFACTURING PROPERTIES				
Chemical, Petroleum, Paints, Plastics	7	.12	86,000	.16
Wood, Furniture, Paper Printing	21	.36	2,250,021	4.17
Metal, Metal Products, Electrical Appliances	16	.27	3,595,105	6.66
Food Processing	14	.24	388,932	.72
Beverages, Tobacco, Soap, Margarine	2	.03	119,116	.22
Textiles	3	.05	16,500	.03
Footwear, Wearing Apparel	8	.14	71,220	.13
Vehicles and Related Equipment	1	.02	1,500	—
Miscellaneous	14	.24	89,495	.17
Sub-total	**86**	**1.47**	**6,617,889**	**12.26**
INDUSTRIAL STORAGE PROPERTIES				
Agricultural Products	13	.22	231,683	.43
Textiles, Fibres, Clothing	1	.02	80,000	.15
Processed Food, Beverages	1	.02	53,361	.10
Flammable Liquids, Gasses, Petroleum	3	.05	3,000	.01
Wood Furniture, Paper and Products	4	.07	288,635	.53
Chemicals, Plastics, Paints	3	.05	26,829	.05
Metal Goods, Machinery, Electrical Appliances	3	.05	—	—
Vehicles	171	2.93	3,202,516	5.93
Miscellaneous	15	.25	909,375	1.68
Sub-total	**214**	**3.66**	**4,795,399**	**8.88**
SPECIAL PROPERTY-TRANSPORTATION EQUIPMENT				
Outdoor Property	1,756	30.07	1,022,162	1.89
Pier, Wharf	7	.12	137,500	.25
Under Construction/Demolition: Vacant	107	1.83	1,990,223	3.70
Watercraft	5	.09	15,482	.03
Rail Transport Vehicle and Equipment	18	.31	267,100	.49
Ground Transport Vehicle	874	14.97	1,647,833	3.06
Aircraft	2	.03	72,500	.13
Special Vehicle	112	1.92	703,486	1.30
Miscellaneous	2	.03	4,500	.01
Sub-total	**2,883**	**49.37**	**5,860,786**	**10.86**

Table No. 10 (continued)

Losses by Major Property Classifications, 1986

Property Classification	Number of Fires	Percent	Amount	Percent
MISCELLANEOUS				
Laboratories	1	.02%	$ 50	—%
Farm Facilities	121	2.08	3,257,199	6.03
Miscellaneous Outbuildings	89	1.52	715,670	1.33
Utility	27	.47	263,350	.49
Cement, Glass, Pottery Manufacturing	1	.02	—	—
Mining, Quarrying	2	.03	6,000	.01
Communications	2	.03	125,000	.23
Nucleonics	—	—	—	—
Miscellaneous	2	.03	600	—
Sub-total	**245**	**4.20**	**4,367,869**	**8.09**
Total	**5,840**	**100.00%**	**$53,972,761**	**100.00%**

Table No. 10(a)

Breakdown of Area of Origin by Property Classification, 1986

Area of Origin of Fire	Assembly No.	Assembly Percent	Assembly Amount	Assembly Percent	Institutional No.	Institutional Percent	Institutional Amount	Institutional Percent
Means of Egress	7	7.00%	$ 1,750	.01%	1	1.82%	$ —	—%
Assembly, Sales Area	13	13.00	74,330	.63	4	7.27	55,885	13.23
Function Area	38	38.00	438,270	3.73	37	67.28	230,308	54.51
Storage Area	12	12.00	117,350	1.00	4	7.27	275	.07
Service Facilities	2	2.00	50	—	—	—	—	—
Service and Equipment Area	10	10.00	497,654	4.24	4	7.27	100,150	23.71
Structural Area	9	9.00	2,482,850	21.14	—	—	—	—
Vehicle Area	—	—	—	—	—	—	—	—
Outside Area	1	1.00	75	—	—	—	—	—
Undetermined/Unclassified	8	8.00	8,131,000	69.25	5	9.09	35,800	8.48
Total	**100**	**100.00%**	**$11,743,329**	**100.00%**	**55**	**100.00%**	**$ 422,418**	**100.00%**

Table No. 10(b)

Breakdown of Area of Origin by Property Classification, 1986

Area of Origin of Fire	Residential				Business and Personal Services			
	No.	Percent	Amount	Percent	No.	Percent	Amount	Percent
Means of Egress	97	4.49%	$ 1,083,148	5.96%	5	20.00%	$ 73,086	39.61%
Assembly, Sales Area	336	15.57	2,799,351	15.41	—	—	—	—
Function Area	1,067	49.43	5,335,660	29.37	9	36.00	9,060	4.91
Storage Area	139	6.44	2,404,397	13.23	7	28.00	77,254	41.87
Service Facilities	203	9.41	1,119,456	6.16	—	—	—	—
Service and Equipment Area	61	2.83	1,128,753	6.21	1	4.00	—	—
Structural Area	116	5.38	1,563,410	8.60	2	8.00	16,101	8.73
Vehicle Area	12	.56	161,369	.89	1	4.00	9,000	4.88
Outside Area	9	.42	19,302	.11	—	—	—	—
Undetermined/Unclassified	118	5.47	2,554,184	14.06	—	—	—	—
Total	**2,158**	**100.00%**	**$18,169,030**	**100.00%**	**25**	**100.00%**	**$ 184,501**	**100.00%**

Table No. 10(c)

Breakdown of Area of Origin by Property Classification, 1986

Area of Origin of Fire	Mercantile				Industrial Manufacturing Properties			
	No.	Percent	Amount	Percent	No.	Percent	Amount	Percent
Means of Egress	4	5.41%	$ 20,794	1.15%	3	3.49%	$ 58,550	.98%
Assembly, Sales Area	4	5.41	49,440	2.73	2	2.33	30,874	.47
Function Area	10	13.51	45,028	2.49	35	40.69	4,802,093	72.57
Storage Area	19	25.68	1,073,904	59.28	10	11.63	63,200	.95
Service Facilities	5	6.76	27,200	1.50	6	6.98	41,500	.63
Service and Equipment Area	23	31.07	379,899	20.97	9	10.47	136,150	2.06
Structural Area	3	4.05	1,175	.06	9	10.47	386,773	5.84
Vehicle Area	1	1.35	—	—	—	—	—	—
Outside Area	1	1.35	500	.03	1	1.16	—	—
Undetermined/Unclassified	4	5.41	213,600	11.79	11	12.78	1,098,749	16.60
Total	**74**	**100.00%**	**$ 1,811,540**	**100.00%**	**86**	**100.00%**	**$ 6,617,889**	**100.00%**

Table No. 10(d)

Breakdown of Area of Origin by Property Classification, 1986

Area of Origin of Fire	Industrial Storage Properties No.	Percent	Amount	Percent	Special Property - Transportation Equipment No.	Percent	Amount	Percent
Means of Egress	2	.93%	$ 1,650	.03%	9	.31%	$ 130,600	2.23%
Assembly, Sales Area	—	—	—	—	12	.42	165,400	2.82
Function Area	4	1.87	2,608,663	54.40	11	.38	191,200	3.26
Storage Area	163	76.16	1,692,694	35.30	20	.69	436,248	7.44
Service Facilities	3	1.40	6,600	.14	—	—	—	—
Service and Equipment Area	11	5.14	261,363	5.45	4	.14	18,000	.31
Structural Area	9	4.21	22,136	.46	22	.76	873,199	14.90
Vehicle Area	5	2.34	18,224	.38	994	34.48	2,500,935	42.67
Outside Area	9	4.21	102,635	2.14	1,775	61.57	1,145,068	19.54
Undetermined/Unclassified	8	3.74	81,434	1.70	36	1.25	400,136	6.83
Total	**214**	**100.00%**	**$ 4,795,399**	**100.00%**	**2,883**	**100.00%**	**$ 5,860,786**	**100.00%**

Table No. 10(e)

Breakdown of Area of Origin by Property Classification, 1986

Area of Origin of Fire	Miscellaneous Properties No.	Percent	Amount	Percent	Totals of All Property Classifications No.	Percent	Amount	Percent
Means of Egress	2	.82%	$ 78,646	1.80%	130	2.23%	$ 1,448,224	2.68%
Assembly, Sales Area	13	5.31	125,420	2.87	384	6.58	3,300,700	6.12
Function Area	2	.82	446,036	10.21	1,213	20.76	14,106,318	26.14
Storage Area	91	37.13	1,576,768	36.11	465	7.96	7,442,090	13.79
Service Facilities	1	.41	50	—	220	3.77	1,194,856	2.21
Service and Equipment Area	13	5.31	835,753	19.13	136	2.33	3,357,722	6.22
Structural Area	18	7.35	215,127	4.93	188	3.22	5,560,771	10.30
Vehicle Area	—	—	—	—	1,013	17.35	2,689,528	4.98
Outside Area	80	32.65	301,589	6.90	1,876	32.12	1,569,169	2.91
Undetermined/Unclassified	25	10.20	788,480	18.05	215	3.68	13,303,383	24.65
Total	**245**	**100.00%**	**$ 4,367,869**	**100.00%**	**5,840**	**100.00%**	**$53,972,761**	**100.00%**

Table No. 11

Breakdown of Act or Omission by Property Classification, 1986

Act or Omission	Assembly				Institutional			
	No.	Percent	Amount	Percent	No.	Percent	Amount	Percent
Incendiary or Set Fire	34	34.00%	$ 5,304,675	45.18%	15	27.27%	$ 54,353	12.87%
Misuse of Source of Ignition	5	5.00	4,580	.04	14	25.45	1,730	.41
Misuse of Material Ignited	4	4.00	117,504	1.00	—	—	—	—
Mechanical, Electrical Failure, Malfunction	23	23.00	389,694	3.32	9	16.37	118,935	28.15
Construction, Design or Installation Deficiency	1	1.00	850	.01	—	—	—	—
Misuse of Equipment	2	2.00	2,500	.02	—	—	—	—
Human Failing	15	15.00	47,541	.40	10	18.18	10,500	2.49
Vehicle Accident	—	—	—	—	—	—	—	—
Unclassified	3	3.00	2,000,385	17.03	1	1.82	150	.04
Undetermined/Not Applicable	13	13.00	3,875,600	33.00	6	10.91	236,750	56.04
Total	**100**	**100.00%**	**$11,743,329**	**100.00%**	**55**	**100.00%**	**$ 422,418**	**100.00%**

Table No. 11(a)

Breakdown of Act or Omission by Property Classification, 1986

Act or Omission	Residential				Business and Personal Services			
	No.	Percent	Amount	Percent	No.	Percent	Amount	Percent
Incendiary or Set Fire	180	8.34%	$ 2,557,381	14.08%	8	32.00%	$ 23,079	12.51%
Misuse of Source of Ignition	404	18.72	1,992,418	10.97	2	8.00	—	—
Misuse of Material Ignited	82	3.80	826,957	4.55	2	8.00	—	—
Mechanical, Electrical Failure, Malfunction	463	21.46	3,355,318	18.47	6	24.00	28,836	15.63
Construction, Design or Installation Deficiency	59	2.73	553,150	3.04	1	4.00	1,000	.54
Misuse of Equipment	22	1.02	170,978	.94	—	—	—	—
Human Failing	649	30.07	2,810,015	15.47	2	8.00	50,000	27.10
Vehicle Accident	—	—	—	—	—	—	—	—
Unclassified	66	3.06	441,526	2.43	—	—	—	—
Undetermined/Not Applicable	233	10.80	5,461,287	30.05	4	16.00	81,586	44.22
Total	**2,158**	**100.00%**	**$18,169,030**	**100.00%**	**25**	**100.00%**	**$ 184,501**	**100.00%**

Table No. 11(b)

Breakdown of Act or Omission by Property Classification, 1986

Act or Omission	Mercantile				Industrial Manufacturing Properties			
	No.	Percent	Amount	Percent	No.	Percent	Amount	Percent
Incendiary or Set Fire	17	22.97%	$ 793,794	43.81%	12	13.95%	$ 1,292,911	19.54%
Misuse of Source of Ignition	4	5.41	18,115	1.00	13	15.12	82,170	1.24
Misuse of Material Ignited	6	8.11	8,000	.44	7	8.14	68,850	1.04
Mechanical, Electrical Failure, Malfunction	25	33.78	84,059	4.64	25	29.07	598,916	9.05
Construction, Design or Installation Deficiency	1	1.35	19,000	1.05	3	3.49	175,700	2.65
Misuse of Equipment	—	—	—	—	5	5.81	137,245	2.07
Human Failing	6	8.11	189,650	10.47	1	1.16	—	—
Vehicle Accident	—	—	—	—	—	—	—	—
Unclassified	2	2.70	275	.02	3	3.49	131,500	1.99
Undetermined/Not Applicable	13	17.57	698,647	38.57	17	19.77	4,130,597	62.42
Total	**74**	**100.00%**	**$ 1,811,540**	**100.00%**	**86**	**100.00%**	**$ 6,617,889**	**100.00%**

Table No. 11(c)

Breakdown of Act or Omission by Property Classification, 1986

Act or Omission	Industrial Storage Properties				Special Property - Transportation Equipment			
	No.	Percent	Amount	Percent	No.	Percent	Amount	Percent
Incendiary or Set Fire	77	35.99%	$ 748,201	15.60%	1,352	46.90%	$ 1,292,703	22.06%
Misuse of Source of Ignition	14	6.54	92,954	1.94	263	9.12	1,205,008	20.56
Misuse of Material Ignited	12	5.61	87,746	1.83	32	1.11	80,267	1.37
Mechanical, Electrical Failure, Malfunction	36	16.82	198,288	4.13	273	9.47	933,359	15.93
Construction, Design or Installation Deficiency	6	2.80	11,387	.24	2	.07	40,000	.68
Misuse of Equipment	5	2.34	22,449	.47	7	.24	18,655	.32
Human Failing	3	1.40	3,200	.07	36	1.25	69,177	1.18
Vehicle Accident	1	.47	1,600	.03	16	.55	103,114	1.76
Unclassified	2	.93	13,829	.29	46	1.60	36,475	.62
Undetermined/Not Applicable	58	27.10	3,615,745	75.40	856	29.69	2,082,028	35.52
Total	**214**	**100.00%**	**$ 4,795,399**	**100.00%**	**2,883**	**100.00%**	**$ 5,860,786**	**100.00%**

Table No. 11(d)

Breakdown of Act or Omission by Property Classification, 1986

Act or Omission	Miscellaneous Properties				Totals of All Property Classifications			
	No.	Percent	Amount	Percent	No.	Percent	Amount	Percent
Incendiary or Set Fire	61	24.89%	$ 484,026	11.08%	1,756	30.07%	$12,551,123	23.26%
Misuse of Source of Ignition	50	20.41	1,045,443	23.93	769	13.17	4,442,418	8.23
Misuse of Material Ignited	12	4.90	97,644	2.24	157	2.69	1,286,968	2.38
Mechanical, Electrical Failure, Malfunction	50	20.41	1,697,929	38.88	910	15.58	7,405,334	13.72
Construction, Design or Installation Deficiency	2	.82	850	.02	75	1.28	801,937	1.49
Misuse of Equipment	1	.41	—	—	42	.72	351,827	.65
Human Failing	5	2.04	875	.02	727	12.45	3,180,958	5.89
Vehicle Accident	—	—	—	—	17	.29	104,714	.19
Unclassified	9	3.67	9,655	.22	132	2.26	2,633,795	4.88
Undetermined/Not Applicable	55	22.45	1,031,447	23.61	1,255	21.49	21,213,687	39.31
Total	**245**	**100.00%**	**$ 4,367,889**	**100.00%**	**5,840**	**100.00%**	**$53,972,761**	**100.00%**

Table No. 12

Breakdown of Source of Heat of Ignition by Property Classification, 1986

Source of Heat of Ignition	Assembly No.	Assembly Percent	Assembly Amount	Assembly Percent	Institutional No.	Institutional Percent	Institutional Amount	Institutional Percent
Electrical Distribution Equipment-Aluminum	—	—%	$ —	—%	—	—%	$ —	—%
Heating Equipment	6	6.00	117,154	1.00	—	—	—	—
Cooking Equipment	22	22.00	110,770	.94	11	20.00	13,500	3.20
Smoker's Material	4	4.00	4,580	.04	13	23.64	1,730	.41
Electrical Distribution Equipment-Copper	9	9.00	358,300	3.05	4	7.27	115,735	27.40
Electrical Appliance and Equipment	2	2.00	—	—	1	1.82	200	.05
Other Appliance and Equipment	2	2.00	3,850	.03	2	3.64	—	—
Open Flame	41	41.00	5,276,075	44.93	17	30.90	9,353	2.21
Exposure	1	1.00	—	—	—	—	—	—
Miscellaneous	1	1.00	2,000,000	17.03	1	1.82	150	.04
Undetermined/Unclassified	12	12.00	3,872,600	32.98	6	10.91	281,750	66.69
Total	**100**	**100.00%**	**$11,743,329**	**100.00%**	**55**	**100.00%**	**$ 422,418**	**100.00%**

Table No. 12(a)

Breakdown of Source of Heat of Ignition by Property Classification, 1986

Source of Heat of Ignition	Residential No.	Residential Percent	Residential Amount	Residential Percent	Business and Personal Services No.	Business and Personal Services Percent	Business and Personal Services Amount	Business and Personal Services Percent
Electrical Distribution Equipment-Aluminum	3	.14%	$ 55,980	.31%	—	—%	$ —	—%
Heating Equipment	378	17.52	2,489,936	13.70	—	—	—	—
Cooking Equipment	636	29.47	2,279,367	12.55	2	8.00	50	.03
Smoker's Material	267	12.37	1,174,063	6.46	1	4.00	—	—
Electrical Distibution Equipment-Copper	99	4.59	1,387,287	7.64	1	4.00	16,101	8.73
Electrical Appliance and Equipment	82	3.80	518,014	2.85	4	16.00	9,685	5.25
Other Appliance and Equipment	92	4.26	244,168	1.34	—	—	—	—
Open Flame	297	13.76	3,060,069	16.84	10	40.00	8,525	4.62
Exposure	20	.93	411,862	2.27	1	4.00	50,000	27.10
Miscellaneous	73	3.38	454,752	2.50	1	4.00	4,000	2.17
Undetermined/Unclassified	211	9.78	6,093,532	33.54	5	20.00	96,140	52.10
Total	**2,158**	**100.00%**	**$18,169,030**	**100.00%**	**25**	**100.00%**	**$ 184,501**	**100.00%**

Table No. 12(b)

Breakdown of Source of Heat of Ignition by Property Classification, 1986

Source of Heat of Ignition	Mercantile No.	Mercantile Percent	Mercantile Amount	Mercantile Percent	Industrial Manufacturing Properties No.	Industrial Manufacturing Properties Percent	Industrial Manufacturing Properties Amount	Industrial Manufacturing Properties Percent
Electrical Distribution Equipment-Aluminum	1	1.35%	$ 4,500	.25%	—	—%	$ —	—%
Heating Equipment	11	14.86	40,200	2.22	7	8.14	231,500	3.50
Cooking Equipment	—	—	—	—	2	2.33	3,000	.05
Smoker's Material	1	1.35	—	—	5	5.81	68,670	1.04
Elecrical Distribution Equipment-Copper	9	12.16	55,000	3.04	8	9.30	434,616	6.57
Electrical Appliance and Equipment	8	10.81	9,934	.55	6	6.98	100,200	1.51
Other Appliance and Equipment	2	2.70	3,450	.19	6	6.98	41,845	.63
Open Flame	14	18.92	124,476	6.87	20	23.26	369,720	5.59
Exposure	5	6.76	523,500	28.90	1	1.16	4,336	.07
Miscellaneous	4	5.41	4,400	.24	16	18.60	202,050	3.05
Undetermined/Unclassified	19	25.68	1,046,080	57.74	15	17.44	5,161,952	77.99
Total	**74**	**100.00%**	**$ 1,811,540**	**100.00%**	**86**	**100.00%**	**$ 6,617,889**	**100.00%**

Table No. 12(c)

Breakdown of Source of Heat of Ignition by Property Classification, 1986

Source of Heat of Ignition	Industrial Storage Properties No.	Industrial Storage Properties Percent	Industrial Storage Properties Amount	Industrial Storage Properties Percent	Special Property - Transportation Equipment No.	Special Property - Transportation Equipment Percent	Special Property - Transportation Equipment Amount	Special Property - Transportation Equipment Percent
Electrical Distribution Equipment-Aluminum	—	—%	$ —	—%	2	.07%	$ —	—%
Heating Equipment	19	8.88	157,033	3.27	19	.66	194,593	3.32
Cooking Equipment	5	2.34	25,353	.53	43	1.49	30,186	.52
Smoker's Material	3	1.40	16,894	.35	46	1.60	41,335	.71
Electrical Distribution Equipment-Copper	17	7.94	49,197	1.03	71	2.46	223,817	3.82
Electrical Appliance and Equipment	8	3.74	79,140	1.65	24	.83	97,932	1.67
Other Appliance and Equipment	5	2.34	59,743	1.25	161	5.58	449,401	7.67
Open Flame	81	37.85	718,007	14.97	1,558	54.05	1,830,518	31.23
Exposure	3	1.40	18,442	.38	34	1.18	211,815	3.61
Miscellaneous	7	3.27	37,525	.78	37	1.28	84,645	1.44
Undetermined/Unclassified	66	30.84	3,634,065	75.79	888	30.80	2,696,544	46.01
Total	**214**	**100.00%**	**$ 4,795,399**	**100.00%**	**2,883**	**100.00%**	**$ 5,860,786**	**100.00%**

Table No. 12(d)

Breakdown of Source of Heat of Ignition by Property Classification, 1986

Source of Heat of Ignition	Miscellaneous Properties No.	Percent	Amount	Percent	Totals of All Property Classifications No.	Percent	Amount	Percent
Electrical Distribution Equipment-Aluminum	—	—%	$ —	—%	6	.10%	$ 60,480	.11%
Heating Equipment	14	5.71	200,884	4.60	454	7.77	3,431,300	6.36
Cooking Equipment	1	.41	575	.01	722	12.36	2,462,801	4.56
Smoker's Material	1	.41	2,500	.06	341	5.84	1,309,772	2.43
Electrical Distribution Equipment-Copper	32	13.06	874,535	20.02	250	4.28	3,514,588	6.51
Electrical Appliance and Equipment	9	3.67	39,230	.90	144	2.47	854,335	1.58
Other Appliance and Equipment	2	.82	130,250	2.98	272	4.66	932,707	1.73
Open Flame	99	40.40	1,166,172	26.70	2,137	36.59	12,562,915	23.28
Exposure	8	3.27	7,444	.17	73	1.25	1,227,399	2.27
Miscellaneous	18	7.35	161,875	3.71	158	2.71	2,949,397	5.46
Undetermined/Unclassified	61	24.90	1,784,404	40.85	1,283	21.97	24,667,067	45.71
Total	**245**	**100.00%**	**$ 4,367,869**	**100.00%**	**5,840**	**100.00%**	**$53,972,761**	**100.00%**

Table No. 13

Breakdown of Fuel or Energy by Property Classification, 1986

Fuel or Energy	Assembly				Institutional			
	No.	Percent	Amount	Percent	No.	Percent	Amount	Percent
Coal, Wood	6	6.00%	$ 1,400	.01%	4	7.27%	$ 3,548	.84%
Fuel Oil	1	1.00	—	—	—	—	—	—
Gasoline	2	2.00	117,004	1.00	—	—	—	—
Natural Gas	9	9.00	7,350	.06	2	3.64	—	—
Propane	2	2.00	50	—	2	3.64	350	.08
Smoker's Material	4	4.00	4,580	.04	13	23.64	1,730	.41
Electricity	24	24.00	457,526	3.90	13	23.64	129,435	30.64
Lightning	1	1.00	2,000,000	17.03	1	1.82	150	.04
Unclassified	5	5.00	35,144	.30	—	—	—	—
Undetermined/ Not Applicable	46	46.00	9,120,275	77.66	20	36.35	287,205	67.99
Total	**100**	**100.00%**	**$11,743,329**	**100.00%**	**55**	**100.00%**	**$ 422,418**	**100.00%**

Table No. 13(a)

Breakdown of Fuel or Energy by Property Classification, 1986

Fuel or Energy	Residential				Business and Personal Services			
	No.	Percent	Amount	Percent	No.	Percent	Amount	Percent
Coal, Wood	361	16.73%	$ 1,996,788	10.99%	—	—%	$ —	—%
Fuel Oil	23	1.07	279,398	1.54	1	4.00	—	—
Gasoline	6	.28	192,501	1.06	—	—	—	—
Natural Gas	26	1.20	178,770	.98	—	—	—	—
Propane	77	3.57	495,520	2.73	2	8.00	6,200	3.36
Smoker's Material	268	12.42	1,174,063	6.46	1	4.00	—	—
Electricity	814	37.72	4,822,478	26.54	6	24.00	25,136	13.62
Lightning	55	2.55	395,862	2.18	—	—	—	—
Unclassified	32	1.48	218,009	1.20	—	—	—	—
Undetermined/ Not Applicable	496	22.98	8,415,641	46.32	15	60.00	153,165	83.02
Total	**2,158**	**100.00%**	**$18,169,030**	**100.00%**	**25**	**100.00%**	**$ 184,501**	**100.00%**

Table No. 13(b)

Breakdown of Fuel or Energy by Property Classification, 1986

Fuel or Energy	Mercantile				Industrial Manufacturing Properties			
	No.	Percent	Amount	Percent	No.	Percent	Amount	Percent
Coal, Wood	6	8.11%	$ 74,700	4.12%	4	4.65%	$ 234,000	3.54%
Fuel Oil	1	1.35	45,000	2.48	—	—	—	—
Gasoline	2	2.70	5,000	.28	—	—	—	—
Natural Gas	3	4.05	2,000	.11	7	8.14	68,945	1.04
Propane	3	4.05	15,115	.83	4	4.65	15,700	.24
Smoker's Material	1	1.35	—	—	4	4.65	670	.01
Electricity	23	31.08	39,084	2.16	27	31.40	643,466	9.72
Lightning	1	1.35	200	.01	1	1.16	126,000	1.90
Unclassified	—	—	—	—	2	2.33	5,500	.08
Undetermined/ Not Applicable	34	45.96	1,630,441	90.01	37	43.02	5,523,608	83.47
Total	**74**	**100.00%**	**$ 1,811,540**	**100.00%**	**86**	**100.00%**	**$ 6,617,889**	**100.00%**

Table No. 13(c)

Breakdown of Fuel or Energy by Property Classification, 1986

Fuel or Energy	Industrial Storage Properties				Special Property - Transportation Equipment			
	No.	Percent	Amount	Percent	No.	Percent	Amount	Percent
Coal, Wood	25	11.68%	$ 74,953	1.56%	147	5.10%	$ 276,463	4.72%
Fuel Oil	3	1.40	92,650	1.93	30	1.04	173,247	2.96
Gasoline	4	1.87	16,262	.34	120	4.16	378,543	6.46
Natural Gas	5	2.34	53,561	1.12	4	.14	2,664	.05
Propane	6	2.80	52,500	1.09	62	2.15	839,136	14.32
Smoker's Material	3	1.40	16,894	.35	45	1.56	41,310	.70
Electricity	28	13.09	149,457	3.12	116	4.02	372,489	6.36
Lightning	2	.93	13,829	.29	15	.52	16,425	.28
Unclassified	2	.93	13,496	.28	12	.42	108,955	1.86
Undetermined/ Not Applicable	136	63.56	4,311,797	89.92	2,332	80.89	3,651,554	62.29
Total	**214**	**100.00%**	**$ 4,795,399**	**100.00%**	**2,883**	**100.00%**	**$ 5,860,786**	**100.00%**

Table No. 13(d)

Breakdown of Fuel or Energy by Property Classification, 1986

Fuel or Energy	Miscellaneous Properties No.	Percent	Amount	Percent	Totals of All Property Classifications No.	Percent	Amount	Percent
Coal, Wood	39	15.92%	$ 228,215	5.22%	592	10.14%	$ 2,890,067	5.35%
Fuel Oil	1	.41	250	.01	60	1.03	590,545	1.09
Gasoline	3	1.22	133,582	3.06	137	2.35	842,892	1.56
Natural Gas	1	.41	1,400	.03	57	.98	314,690	.58
Propane	9	3.67	616,711	14.12	167	2.86	2,041,282	3.78
Smoker's Material	2	.82	2,500	.06	341	5.84	1,241,747	2.30
Electricity	41	16.73	835,549	19.13	1,092	18.70	7,474,620	13.86
Lightning	8	3.27	1,175	.03	84	1.44	2,553,641	4.73
Unclassified	8	3.27	349,150	7.99	61	1.04	730,254	1.35
Undetermined/ Not Applicable	133	54.28	2,199,337	50.35	3,249	55.62	35,293,023	65.40
Total	**245**	**100.00%**	**$ 4,367,869**	**100.00%**	**5,840**	**100.00%**	**$53,972,761**	**100.00%**

Table No. 14

Breakdown of Material First Ignited by Property Classification, 1986

Material First Ignited	Assembly				Institutional			
	No.	Percent	Amount	Percent	No.	Percent	Amount	Percent
Structural Component, Finish Material	5	5.00%	$ 2,001,850	17.05%	—	—%	$ —	—%
Furniture, Furnishing	3	3.00	7,080	.06	15	27.27	61,443	14.55
Clothing, Textile	—	—	—	—	3	5.45	11,150	2.64
Wood, Paper Product	18	18.00	309,579	2.64	9	16.37	10,100	2.39
Flammable Liquid	23	23.00	61,556	.52	3	5.45	150	.04
Flammable Gas	4	4.00	1,000	.01	1	1.82	—	—
Chemical	2	2.00	500	—	1	1.82	—	—
Agricultural, Forest Product	—	—	—	—	2	3.64	—	—
Miscellaneous	24	24.00	63,114	.54	15	27.27	108,825	25.76
Undetermined/Unclassified	21	21.00	9,298,650	79.18	6	10.91	230,750	54.62
Total	**100**	**100.00%**	**$11,743,329**	**100.00%**	**55**	**100.00%**	**$ 422,418**	**100.00%**

Table No. 14(a)

Breakdown of Material First Ignited by Property Classification, 1986

Material First Ignited	Residential				Business and Personal Services			
	No.	Percent	Amount	Percent	No.	Percent	Amount	Percent
Structural Component, Finish Material	344	15.94%	$ 2,741,512	15.09%	2	8.00%	$ 20,101	10.89%
Furniture, Furnishings	404	18.72	1,780,957	9.80	1	4.00	50	.03
Clothing, Textile	83	3.85	619,215	3.41	—	—	—	—
Wood, Paper Product	130	6.02	882,236	4.86	6	24.00	6,500	3.52
Flammable Liquid	467	21.64	2,125,798	11.70	4	16.00	50,500	27.37
Flammable Gas	20	.93	41,364	.23	1	4.00	4,700	2.55
Chemical	42	1.95	77,838	.43	1	4.00	1,000	.54
Agricultural, Forest Product	16	.74	21,725	.12	—	—	—	—
Miscellaneous	363	16.82	1,530,547	8.42	7	28.00	5,510	2.99
Undetermined/Unclassified	289	13.39	8,347,838	45.94	3	12.00	96,140	52.11
Total	**2,158**	**100.00%**	**$18,169,030**	**100.00%**	**25**	**100.00%**	**$ 184,501**	**100.00%**

Table No. 14(b)

Breakdown of Material First Ignited by Property Classification, 1986

Material First Ignited	Mercantile				Industrial Manufacturing Properties			
	No.	Percent	Amount	Percent	No.	Percent	Amount	Percent
Structural Component, Finish Material	7	9.46%	$ 28,709	1.58%	6	6.98%	$ 364,300	5.50%
Furniture, Furnishing	2	2.70	2,000	.11	3	3.49	30,974	.47
Clothing, Textile	3	4.05	39,000	2.15	8	9.30	84,945	1.28
Wood, Paper Product	5	6.76	29,328	1.62	17	19.77	392,316	5.93
Flammable Liquid	15	20.27	210,315	11.61	9	10.47	41,250	.62
Flammable Gas	2	2.70	3,500	.19	1	1.16	700	.01
Chemical	2	2.70	700	.04	4	4.65	200	—
Agricultural, Forest Product	2	2.70	525	.03	5	5.81	28,900	.44
Miscellaneous	15	20.27	28,930	1.60	15	17.44	72,420	1.09
Undetermined/Unclassified	21	28.39	1,468,533	81.07	18	20.93	5,601,884	84.66
Total	**74**	**100.00%**	**$ 1,811,540**	**100.00%**	**86**	**100.00%**	**$ 6,617,889**	**100.00%**

Table No. 14(c)

Breakdown of Material First Ignited by Property Classification, 1986

Material First Ignited	Industrial Storage Properties				Special Property - Transportation Equipment			
	No.	Percent	Amount	Percent	No.	Percent	Amount	Percent
Structural Component, Finish Material	20	9.35%	$ 39,511	.82%	28	.97%	$ 716,115	12.22%
Furniture Furnishing	8	3.74	7,444	.16	32	1.11	56,507	.96
Clothing, Textile	3	1.40	21,650	.45	20	.69	9,060	.15
Wood, Paper Product	28	13.08	214,188	4.47	133	4.61	580,053	9.90
Flammable Liquid	16	7.48	365,032	7.61	151	5.24	679,085	11.59
Flammable Gas	—	—	—	—	49	1.70	114,587	1.96
Chemical	2	.93	500	.01	21	.73	74,675	1.27
Agricultural, Forest Product	13	6.07	115,341	2.41	478	16.58	652,498	11.13
Miscellaneous	21	9.81	72,097	1.50	1,226	42.53	429,942	7.34
Undetermined/Unclassified	103	48.14	3,959,636	82.57	745	25.84	2,548,264	43.48
Total	**214**	**100.00%**	**$ 4,795,399**	**100.00%**	**2,883**	**100.00%**	**$ 5,860,786**	**100.00%**

Table No. 14(d)

Breakdown of Material First Ignited by Property Classification, 1986

Material First Ignited	Miscellaneous Properties				Total of All Property Classifications			
	No.	Percent	Amount	Percent	No.	Percent	Amount	Percent
Structural Component, Finish Material	18	7.35%	$ 560,295	12.83%	430	7.36%	$ 6,472,393	11.99%
Furniture, Furnishing	1	.41	100	—	469	8.03	1,946,555	3.61
Clothing, Textile	2	.82	1,300	.03	122	2.09	786,320	1.46
Wood, Paper Product	34	13.88	121,126	2.77	380	6.51	2,545,426	4.72
Flammable Liquid	9	3.67	488,482	11.18	697	11.93	4,022,168	7.45
Flammable Gas	2	.82	447,436	10.24	78	1.34	613,287	1.14
Chemical	1	.41	2,740	.06	78	1.34	158,153	.29
Agricultural, Forest Product	81	33.06	657,479	15.05	597	10.22	1,476,468	2.74
Miscellaneous	27	11.02	341,101	7.81	1,713	29.33	2,652,486	4.91
Undetermined/Unclassified	70	28.56	1,747,810	40.03	1,276	21.85	33,299,505	61.69
Total	**245**	**100.00%**	**$ 4,367,869**	**100.00%**	**5,840**	**100.00%**	**$53,972,761**	**100.00%**

Table No. 15

Number of Fires and Amount of Fire Loss by Community or Area, 1986

Municipal Code	Name	Number of Fires	Amount of Loss
002	Town of Altona	9	$ 12,948
003	Village of Arborg	5	38,509
004	R.M. of Archie	3	3,030
005	R.M. of Argyle	4	85,413
006	R.M. of Arthur	1	1,500
010	Town of Beausejour	8	302,828
011	Village of Benito	3	2,650
012	R.M. of Bifrost	21	122,770
014	R.M. of Birtle	6	45,911
015	Town of Birtle	4	417,326
016	R.M. of Blanshard	1	9,500
017	Town of Boissevain	5	239,210
018	R.M. of Boulton	1	—
019	Village of Bowsman	1	10,380
020	City of Brandon	197	3,231,257
021	R.M. of Brenda	1	—
022	R.M. of Brokenhead	21	124,221
023	Government Services	4	550
026	R.M. of Cameron	2	814
027	Town of Carberry	4	51,400
028	Town of Carman	6	68,370
029	R.M. of Cartier	11	66,546
032	R.M. of Clanwilliam	6	33,405
033	R.M. of Coldwell	4	2,215
034	R.M. of Cornwallis	11	45,357
035	Village of Crystal City	1	280,000
038	R.M. of Daly	3	13,013
039	R.M. of Dauphin	10	20,010
040	Town of Dauphin	31	372,858
041	Town of Deloraine	2	17,116
042	R.M. of De Salaberry	12	600,811
043	R.M. of Dufferin	11	459,734
044	Village of Dunnottar	3	31,850
045	Village of Darlingford	1	500
048	R.M. of East St. Paul	21	22,250
049	R.M. of Edward	4	100,466
051	R.M. of Ellice	6	143,559
052	R.M. of Elton	6	10,853
053	Town of Emerson	2	100
054	Village of Erickson	1	—
055	R.M. of Eriksdale	3	163,627
056	R.M. of Ethelbert	5	23,450
057	Village of Ethelbert	2	5,000
058	Village of Elm Creek	2	20,300
060	City of Flin Flon	45	196,737
063	R.M. of Franklin	22	370,639
067	R.M. of Gilbert Plains	10	187,111
068	Village of Gilbert Plains	3	—
069	R.M. of Gimli	12	82,325
070	Town of Gimli	6	187,211
073	R.M. of Glenella	4	8,480

Table No. 15 (continued)

Number of Fires and Amount of Fire Loss by Community or Area, 1986

Municipal Code	Name	Number of Fires	Amount of Loss
074	R.M. of Glenwood	4	$ 123,960
075	R.M. of Grandview	1	12,320
076	Town of Grandview	2	2,000
077	Village of Grand Marais	2	64,000
078	Village of Gretna	4	8,742
079	R.M. of Grey	5	74,724
082	R.M. of Hamiota	1	—
084	R.M. of Hanover	52	551,666
087	R.M. of Hillsburg	3	—
090	Town of Killarney	7	66,662
093	R.M. of La Broquerie	9	292,020
094	R.M. of Lac du Bonnet	18	216,700
095	Village of Lac du Bonnet	3	151,300
096	R.M. of Lakeview	1	974
097	R.M. of Langford	2	—
099	R.M. of Lawrence	5	51,662
100	R.M. of Lorne	7	64,429
101	R.M. of Louise	1	70,748
102	Village of Lowe Farm	2	33,000
103	Village of Letellier	1	195
104	R.M. of MacDonald	27	96,662
105	Village of MacGregor	1	2,990
106	Village of Manitou	1	10,000
107	R.M. of McCreary	1	6,000
108	Village of McCreary	1	2,500
111	Town of Melita	1	800
112	R.M. of Miniota	3	400
113	R.M. of Minitonas	3	18,000
114	Village of Minitonas	2	—
116	R.M. of Minto	1	2,402
117	R.M. of Montcalm	2	100,300
118	Town of Morden	16	36,078
119	R.M. of Morris	15	550,615
120	Town of Morris	6	37,844
121	R.M. of Morton	10	—
122	R.M. of Mossey River	3	65,000
123	U.V.D. of Newdale	1	—
124	Village of Napinka	1	800
125	Town of Neepawa	7	695
126	Village of Niverville	6	18,611
127	R.M. of North Cypress	9	10,300
128	Village of Ninette	1	2,177
129	R.M. of North Norfolk	7	145,847
130	Village of Notre Dame de Lourdes	2	11,800
134	R.M. of Oakland	4	81,715
135	R.M. of Ochre River	10	18,900
136	R.M. of Odanah	2	105,161
137	Village of Onanole	1	—
140	R.M. of Pembina	4	655
141	Village of Pilot Mound	1	39,330
142	R.M. of Pipestone	11	22,572

Table No. 15 (continued)

Number of Fires and Amount of Fire Loss by Community or Area, 1986

Municipal Code	Name	Number of Fires	Amount of Loss
143	Village of Plum Coulee	2	$ 678
144	R.M. of Portage la Prairie	24	382,890
145	City of Portage la Prairie	31	387,218
149	Town of Rapid City	1	—
150	R.M. of Rhineland	34	577,620
151	R.M. of Ritchot	19	26,800
152	Town of Rivers	2	16,000
153	R.M. of Riverside	3	6,375
154	Village of Riverton	1	—
155	R.M. of Roblin	9	75,013
156	Town of Roblin	6	20,275
157	R.M. of Rockwood	23	197,959
158	R.M. of Roland	4	123,000
159	R.M. of Rosedale	7	101,500
162	R.M. of Rosser	16	44,884
163	R.M. of Russell	1	7,161
164	Town of Russell	1	1,200
165	Village of Richer	2	118,502
167	R.M. of St. Andrews	33	686,690
168	R.M. of Ste. Anne	14	102,096
169	Village of Ste. Anne	3	92,300
170	Village of Swan Lake	2	8,700
171	Village of St. Claude	2	6,000
172	R.M. of St. Clements	8	76,990
173	R.M. of St. Francois Xavier	3	101,900
174	Village of St. Malo	3	8,970
175	R.M. of St. Laurent	6	190,000
176	Village of St. Lazare	1	10,000
177	Village of St. Pierre Jolys	2	26,600
178	R.M. of Ste. Rose	9	182,439
179	Village of Ste. Rose du Lac	2	481
181	Village of Sandy Lake	1	—
182	R.M. of Saskatchewan	2	625
183	Town of Selkirk	39	150,736
184	R.M. of Shellmouth	8	1,190
185	R.M. of Shell River	10	112,103
186	R.M. of Shoal Lake	3	—
187	Village of Shoal Lake	4	12,935
188	R.M. of Sifton	8	48,660
189	R.M. of Siglunes	2	930
193	R.M. of South Cypress	3	11,119
194	R.M. of South Norfolk	3	141,029
195	R.M. of Springfield	73	510,733
196	R.M. of Stanley	39	327,517
197	Town of Steinbach	37	42,892
198	Town of Stonewall	13	3,842
199	R.M. of Strathclair	1	18,655
200	R.M. of Strathcona	5	19,000
201	R.M. of Swan River	23	767,619
202	Town of Swan River	26	100,769
203	Village of Stony Mountain	4	134,603

Table No. 15 (continued)

Number of Fires and Amount of Fire Loss by Community or Area, 1986

Municipal Code	Name	Number of Fires	Amount of Loss
204	Village of Sperling	1	$ 2,090
205	R.M. of Tache	11	95,885
206	Village of Teulon	2	1,125
207	Town of The Pas	51	94,821
208	R.M. of Thompson	1	—
209	City of Thompson	132	629,453
212	R.M. of Turtle Mountain	7	59,500
216	R.M. of Victoria	1	3,742
217	R.M. of Victoria Beach	7	675
218	Town of Virden	12	22,120
221	R.M. of Wallace	19	171,010
222	Village of Waskada	2	58,605
223	Village of Wawanesa	2	53,400
224	R.M. of Westbourne	6	12,960
226	R.M. of West St. Paul	19	101,628
227	R.M. of Whitehead	7	17,676
228	R.M. of Whitemouth	11	322,600
229	R.M. of Whitewater	2	55,174
230	R.M. of Winchester	2	27,769
231	Town of Winkler	19	216,638
232	City of Winnipeg	3,749	24,125,606
233	Town of Winnipeg Beach	5	48,263
234	Village of Winnipegosis	2	—
235	R.M. of Woodlands	8	44,706
236	R.M. of Woodworth	4	4,700
237	Community of Warren	3	120,455
238	L.G.D. of Alexander	15	435,935
240	L.G.D. of Alonsa	7	69,250
242	L.G.D. of Armstrong	7	93,984
244	L.G.D. of Churchill	2	1,000
246	L.G.D. of Consol	4	1,634
248	L.G.D. of Fisher	16	35,678
250	L.G.D. of Gillam	16	1,265,914
252	L.G.D. of Grahamdale	8	20,300
255	Bissett	1	1,100
256	Town of Leaf Rapids	3	3,500
258	L.G.D. of Lynn Lake	3	24,070
259	Stevenson Island	3	2,000
260	L.G.D. of Mountain	16	550,155
263	Big Black River	1	—
264	L.G.D. of Park	2	23,800
265	Meadow Portage	3	77,000
266	L.G.D. of Pinawa	3	1,567
268	L.G.D. of Piney	13	245,047
269	Dallas/Red Rose	1	43,000
270	L.G.D. of Reynolds	9	84,367
272	Town of Snow Lake	3	3,785
273	Dakota Ojibway Tribal Council	19	605,400
274	L.G.D. of Stuartburn	8	8,873
275	Berens River	8	500

Table No. 15 (continued)

Number of Fires and Amount of Fire Loss by Community or Area, 1986

Municipal Code	Name	Number of Fires	Amount of Loss
277	Waterhen	1	$ 2,744
278	Cranberry Portage	2	2,500
279	Thicket Portage	4	—
282	Crane River	1	17,000
285	Mallard	1	—
287	Pelican Rapids	1	—
288	Pikwitonei	1	10,000
290	Sherridon	3	—
291	Duck Bay	6	125,000
292	Barrows/Red Deer Lake	5	—
296	Moose Lake	5	—
297	Norway House	1	3,000
298	South Indian Lake	3	37,500
299	Wabowden	7	29,000
300	Miscellaneous	48	3,165,119
303	Granville Lake	1	—
307	Nelson House	2	—
315	West Region Tribal Council	2	—
320	Miscellaneous Indian Reserves	53	3,269,874
324	Manfor, The Pas	2	30,000
	Total	**5,840**	**$53,972,761**

Table No. 16

Fires Causing Three or More Fatalities, 1986

Date	Location	Occupancy	Cause	Fatality Breakdown Men	Women	Children	Total
86 11 29	Little Saskatchewan Indian Reserve	Dwelling	Undetermined — accidental	1	2	—	3

Table No. 17

Fire Losses Exceeding $500,000., 1986

Date	Location	Occupancy	Reported Cause	Amount of Loss
86 01 30	L.G.D. Gillam	Airport	Undetermined — accidental	$1,100,000*
86 01 31	Winnipeg	Apartment	Incendiary	526,338*
86 02 17	Clearwater Lake	Aircraft Hangar	Undetermined — accidental	2,000,000*
86 02 18	R.M. Swan River	Saw Mill	Undetermined — accidental	599,634
86 02 21	Brandon	Warehouse	Undetermined — accidental	750,000*
86 02 22	Winnipeg	Industrial Manufacturing	Undetermined	3,478,255*
86 05 23	Winnipeg	Industrial Manufacturing	Undetermined — suspicious	1,000,691*
86 06 26	Brandon	Church	Lightning	1,600,000
86 07 22	Winnipeg	School	Incendiary	4,516,000*
86 08 29	Winnipeg	Town House under construction	Accidental	520,783
86 10 03	Split Lake Indian Reserve	School	Undetermined — accidental	2,414,000*

*Estimated loss

Section II — Investigation

Table No. 18
Investigations Conducted by Local Police, 1986

Area	Number of Investigations Conducted
Winnipeg Police	70
Urban Police Forces	41
R.C.M.P.	252
Total	**363**

For investigations conducted by staff of the Fire Commissioners Office in co-operation with local authorities please see the 86/87 Department of Labour Annual Report.

Table No. 19
Findings of Investigations Conducted Under The Fires Prevention Act, 1986

Cause of Fire	Number
Accidental	202
Incendiary	44
Vandalism	21
Undetermined — Accidental	91
— Suspicious	4
Still Under Investigation	1
Total	**363**

Table No. 20

Disposition of Investigations Related to Incendiary Fires, 1986

Disposition	1985	1986
Insufficient Evidence for Charges to be Laid at End of 1986	32	28
Charges — Adults	45	38
— Juveniles	31	37
Convictions — Adults	20	20
— Juveniles	24	18
Charges Stayed or Withdrawn	20	11
Juveniles Warned	47	40
Adjourned "Sine Die"	2	—
Acquittals	6	1
Charges Dismissed	3	1
Absolute Discharge	1	—
Conditional Discharge	1	—
Cleared Otherwise	—	—
Under Investigation	—	—
Suicide by Arson	1	1
Attempted Suicide by Arson	2	1
Murder by Arson	—	—
Detained for Psychiatric Examination	—	—
Death by Incendiarism	—	1
Convicted on Other Offenses Related to Fire Incidents	1	2
No Charges Laid Due to Mental Illness	4	3
Warrants Issued	—	2
Court Cases Pending	2	23

**Three court cases pending prior to 1985.*

Section III — Manitoba Fire Chiefs

Office of the Fire Commissioner List of Fire Chiefs and Fire Departments 1986

Alexander	W.J. Dane
Alonsa	Stan Fashoway
Altona	Ed Klassen
Amaranth	Lloyd Emberly
Angusville	Mike Klym
Arborg-Bifrost	Geo. Chyzy
Arden	Dennis Gagnon
Ashern	Matt Baker
Austin	Don Currie
Baldur-Argyle	William Warrener
Barrows	Alfred Hanson
Beausejour	Ron F. Nikodem
Belmont	Edward Verhelst
Benito	Ken Schenk
Berens River	Roland Dubien
Big Black River	Raymond Valiquette
Binscarth	Roy Graham
Birch River	Floyd Corbett
Birtle	Gerald Birch
Bissett	Alden Wood
Boissevain	Ronald Walker
Bowsman	Ken Fahrenschon
Brandon	E. Polnick
Brochet	Roderick Thomas
Camperville	George Flamond
Carberry-N. Cypress	R. Alvin Walker
Carman-Dufferin	Brian Milne
Cartier, R.M.	Roger Gillis
Cartwright-Roblin	Wm. G. Waldie
Churchill	Dick Hunter
Cormorant	Joe Sydor
Cranberry Portage	Wayne Streamer
Crane River	Marcel Abraham
Cross Lake	Glen Smith
Crystal City	Wm. McKitrick
Cypress River	Brian Laing
Dallas/Red Rose	Vacant
Darlingford	Bob Davidson
Dauphin	Dave Seeley
Dauphin River	Erle Einarson
Deloraine	Wm. Cheyne
Dominion City	Barry Gushuliak
Duck Bay	Charles Sanderson
Dunrea	Len Clark
East St. Paul	Ernie Ottenbreit
East Selkirk	Clive Rennie
Easterville	Brian McLeod
Eddystone	Kelly Johnson
Elm Creek	Kermit Olson
Emerson	Lawrence Pow
Erickson	Dennis Skog
Eriksdale	Harry Grandburg
Ethelbert	Ray Silbernagel
Fisher Bay	Vacant
Fisher Branch	John Plett
Flin Flon	Ruben Hagen
Fork River	Ben Bornn
Foxwarren	Don Hodgson
Fraserwood	Steven Maksymyk
Gilbert Plains	Len Pratt
Gillam	Brent Clayton
Gimli	Bert Bouillet
Gladstone	Richard Foxon
Glenboro	W.R. Jamieson
Glenella	Gordon Wilson
Gods Lake Narrows	Raymond Trout
Grand Marais	Art Carriere
Grand Rapids	Greg King
Grandview	John Yarush
Granville Lake	Geo. MacKenzie
Gretna	John Teichroeb
Grunthal	Abe Friesen
Gypsumville	Murray L. Jackson
Hamiota	Barry Lee
Hartney	R.A. McKenzie
Harwill	David Hobden
Haywood	J. Dheilly
Herb Lake Landing	Jim Corman
Holland	Ron Landrevilie
Homebrook	Ruth Zahorodney
Ilford	Edward Shoup
Inglis	Gerald Gorda
Inwood	Gordon Strick
Kelwood	Andre Aucoin
Kenton	Ivan Crampain
Killarney	C.E. Hartwell
Kleefeld	Abe Martens
La Broquerie	Gilbert Tetrault
La Riviere	Karl Wiklund

Office of the Fire Commissioner List of Fire Chiefs and Fire Departments 1986 (continued)

Lac du Bonnet	Lloyd Howe
Leaf Rapids	Edward Kozy
Letellier-St. Joseph	Marc P. Lemay
Lorette	R. Desorcy
Lorne, R.M.	Peter Sheffield
Lowe Farm	Geo Klassen
Lundar	Ernie Oliver
Lynn Lake	Wayne Doak
MacDonald, R.M.	Alvin R. Murner
MacGregor	Ronald Borton
Mafeking	Melvin Plett
Manigotogan	Charles Simard
Manitou	Frank Gerbrandt
Matheson Island	Don Ladouceur
McAuley	Glendon Patterson
McCreary	Wm. Roncin
Meadow Portage	Ken Spence
Melita	Mel Davis
Miami	L. Mansell
Miniota	S.W. Dales
Minitonas	Douglas E. Wagner
Minnedosa	Bill McVey
Moose Lake	Michael Lucien
Moosehorn	Michael Kutzy
Morden	Percy Paracholski
Morris	Bill Harder
National Mills	Vacant
Neepawa	Don Evenson
Nelson House	Wayne Spence
Newdale	Henry Winder
Ninette	Bob Mason
Niverville	George Dyck
Norway House	Ted Anderson
Notre Dame de Lourdes	Yves Julian
Oak Bank	John Murrell
Oak Lake	Robert Smith
Oak River	Harold Spring
Oakburn	J.R. Edmundson
Ochre River	W. Lloyd Freeman
Onanole & District	Richard Proven
Pelican Rapids	Gordon Munroe
Pierson	Merv Nicholls
Pikwitonei	Leon Brightnose
Pilot Mound	K.L. Heppner
Pinawa	N.P. Cliche
Pine Falls	Wilfred Kemball
Pine River	Wm. J. Bodnarchuk
Piney	Dale Edbom
Plumas	Ron Curtis
Plum Coulee	Norman Dyck
Pointe du Bois	Gordon Johnson
Portage la Prairie	Albert McDonald
Rapid City	Rick Worth
Red Deer Lake	Faron Cook
Reston	Wm. W. Busby
Richer	John Love
Rivers	Maurice Dickson
Riverton	Raymond Johnson
Roblin	Tom Bowley
Roland	James Moffatt
Rorketon	Leo. L. Hrushowy
Rosedale, R.M.	Matt Skibinsky
Rosenort	Frank Plett
Rossburn	Larry Huston
Rosser	Carl Simonson
Russell	Henry Smith
St. Adolphe	Hubert Brodeur
St. Andrews, R.M.	Edwin Carter
St. Claude	Gilbert Pineau
St. Francois Xavier	John Zeemel
St. Jean Baptiste	Norbert Sabourin
St. Laurent	Ed Schon
St. Lazare	Harry Jessop
St. Malo	Denis Maynard
St. Pierre-Jolys	R. Hebert
Ste. Anne	Maurice Chaput
Ste. Rose du Lac	Wm. Ryder
Sandy Lake	Les Lewandoski
Selkirk	Ted Wozny
Seymourville	Ted Seymour
Sherridon	Debi Hatch
Shoal Lake	Graydon Bell
Sifton	Martin Gancher
Snow Flake	Bill Giesbrecht
Snow Lake	David Syms
Somerset	Luc Boulet
Souris	Donald Doherty
South Indian Lake	Steve Ducharme
South Norfolk, R.M.	Eric Allan

Office of the Fire Commissioner
List of Fire Chiefs and Fire Departments
1986 (continued)

Sperling	Wendell J. Fewster
Sprague	Stan Meek
Steinbach	Ert Peters
Stevenson Island	Len Chornaby
Stonewall-Rockwood	Barry Mann
Stony Mountain-Rockwood	Ted Shinn
Strathclair	Brian Martin
Swan River	Lorne Halliday
Teulon-Rockwood	Jack Palen
The Pas	Neil Puckett
Thicket Portage	Alvin Brightnose
Thompson	L. Carkener
Treherne	John Jenkinson
Victoria Beach	Robert L. Jonsson
Vita	Robert C. Cesmystruk
Wabowden	Vern Smith
Wallace and District	Bill Edmonds
Warren-Woodlands	Allan Jones
Wasagaming	Pat Rousseau
Waskada	Kenneth Austin
Waterhen	Allan McCreery
Wawanesa	Mel Roney
West St. Paul	Tom E. Addis
Whitemouth, R.M.	Paul Thomson
Whitewater, R.M.	Albert Addison
Winkler	John Elias
Winnipeg	Jack Henderson
Winnipeg Beach	Jerry Hykawy
Winnipegosis	C. Bergen